

1 A. Most of the SWEPCO employees devoted to working on its transmission system are
2 located in the TCFS department. Actual counts for SWEPCO Transmission employees
3 at year end for 2017 through 2019 and the test year are included in Figure 3.

4 Figure 3
5 SWEPCO Transmission Employees

	12/31/17	12/31/18	12/31/19	Test Year
SWEPCO Transmission Employees	76	83	101	99

6 Figure 3 shows that staffing levels have increased during the past few years.
7 This increase in SWEPCO Transmission employees corresponds to the increase in
8 transmission activities within the SWEPCO service territory. Specifically, staffing has
9 increased to address emerging transmission issues, including vegetation management,
10 more stringent reliability requirements, increased transmission projects due to factors
11 such as new generation projects and SPP mandated projects, and the growth in demand
12 for transmission services in the Company's service territory.

13 Q. DOES THE COMPANY MAKE USE OF CONTRACTOR OR OUTSIDE
14 SERVICES IN CONNECTION WITH THE OPERATION AND MAINTENANCE
15 OF THE SWEPCO TRANSMISSION SYSTEM?

16 A. Yes. Outside Services accounted for approximately \$13.9 million of the Company's
17 test year O&M expense, which includes the AEPSC O&M expenses I discuss later in
18 Section VII. SWEPCO uses contractor services to supplement the Company's own
19 workforce in order to respond to fluctuations in workload related to construction
20 activities, service restoration, and to provide some of its ongoing 24 x 7 support staff.
21 Some of the contractors perform services (e.g., vegetation management, line inspection
22 and maintenance, pole inspection and maintenance, and station maintenance) under

1 multi-year contracts awarded by SWEPCO. In fact, the Company uses outside services
2 to perform all of the physical vegetation management activities (e.g., tree trimming).
3 The Company utilizes competitive bidding in awarding these contracts to ensure
4 reasonable and competitive pricing. These contractors are evaluated annually for safety
5 qualification and productivity compliance.

6 For other contract services (e.g., ROW maintenance, emergency patrols and
7 emergency restoration, and specialty work such as transformer or relay maintenance),
8 the Company negotiates blanket contracts under which contract services can be
9 provided repeatedly over time. These contracts include pre-determined labor and
10 equipment rates, value limits and expiration dates as a further control on contractor
11 costs. Contractors operating under blanket contracts are selected on the basis of
12 historical safety performance, skills, capability, and associated rate schedules that
13 compare favorably to the rate schedules for other similar type contractors. This process
14 expedites required transmission asset maintenance activities that are time constrained,
15 such as emergency restoration and reliability projects, while still ensuring competitive
16 cost.

17 Benchmarking Studies

18 Q. HAS THE COMPANY PERFORMED ANY BENCHMARKING STUDIES
19 COMPARING ITS LEVEL OF TRANSMISSION O&M EXPENSES TO OTHER
20 PEER GROUPS IN THE INDUSTRY?

21 A. Yes. Three benchmark studies were prepared, each using a different peer group. The
22 three peer groups were a Texas peer group, a south central peer group, and a national
23 peer group.

1 The three studies benchmarked the transmission O&M dollars per line-mile
2 metric amongst the peer group utilities for the calendar years 2017, 2018, and 2019.
3 This time period was selected to provide a sufficient number of years to show the
4 general trends. The data utilized in the transmission benchmarking for all of the electric
5 utilities comes from FERC Form 1. The following FERC accounts are included in the
6 benchmark study data: 560, 561, 562, 563, 564, 566, 567, 568, 569, 570, 571, 572 and
7 573.

8 The benchmarking study provides the minimum, maximum, and median values
9 for O&M dollars per line-mile for the years 2017 through 2019, and the relative
10 position of SWEPCO for comparison.

11 Q. PLEASE DESCRIBE HOW THE THREE PEER GROUPS WERE SELECTED.

12 A. To qualify for inclusion in the studies, an electric utility must: 1) be investor-owned,
13 2) be owned by parent companies valued at a minimum of \$1 billion, and 3) own
14 transmission facilities within the state(s) included in the peer group being
15 benchmarked. Hence, the Texas peer group consists of qualifying utilities in Texas.
16 There are seven utilities included in the Texas peer group.

17 The south central peer group, with a total of 16 utilities, includes the Texas peer
18 group utilities, the qualifying utilities in all of the states that border Texas, and
19 qualifying utilities in Kansas. By including Kansas, the south central peer group
20 captures most of the investor-owned electric utilities that are members of either
21 ERCOT or SPP. The national peer group is composed of 44 parent companies, and
22 includes the south central peer group utilities and other qualifying utilities in the United
23 States. The members of these three peer groups are listed in EXHIBIT DRB-5.

1 Q. IS THE FERC FORM 1 A REASONABLE SOURCE OF DATA FOR USE IN
2 BENCHMARKING ELECTRIC UTILITY TRANSMISSION O&M EXPENSES?

3 A. Yes. Benchmarking requires comparable data from a common source for all of the
4 entities compared in the benchmarking study. FERC Form 1 is a required filing for all
5 investor-owned electric utilities in the United States. The FERC Form 1 includes
6 transmission O&M expenses by FERC Account, which is the standard for reporting
7 O&M expenses. For these reasons, FERC Form 1 data is a reasonable source to use
8 for benchmarking transmission O&M expenses.

9 Q. PLEASE DISCUSS YOUR BENCHMARKING STUDY RESULTS.

10 A. The results of these benchmarking studies indicate that SWEPCO Transmission O&M
11 expenses are near or at the median values for each of the three peer groups. These
12 results are provided in detail in EXHIBIT DRB-5, and provide solid support that the
13 Company's test year O&M expenses for its transmission system are reasonable when
14 compared to that of the majority of its peers.

15 Q. WHAT DO YOU CONCLUDE ABOUT THE REASONABLENESS AND
16 NECESSITY OF THE COMPANY'S OVERALL TRANSMISSION O&M
17 EXPENSES?

18 A. The cost trends, cost drivers, staffing trends and benchmarking studies I have discussed
19 collectively support a conclusion that the Company's overall transmission costs are
20 necessary, reasonable, and are in line with other peer group utilities.

1 VII. AEPSC TRANSMISSION AFFILIATE CHARGES

2 Q. ARE AFFILIATE CHARGES TO SWEPCO INCLUDED IN THE TOTAL SWEPCO
3 TRANSMISSION O&M TEST YEAR EXPENSES?

4 A. Yes. During the test year, the Company incurred SWEPCO Transmission O&M
5 expenses of \$47 million, including AEPSC O&M charges of \$8.6 million.

6 Q. PLEASE PROVIDE A DESCRIPTION OF THE AFFILIATE TEST YEAR O&M
7 CHARGES TO SWEPCO FOR TRANSMISSION SERVICES.

8 A. AEPSC's test year O&M charges to SWEPCO for the transmission services it provided
9 totaled approximately \$8.6 million, as previously mentioned. These charges represent
10 the cost of AEPSC's transmission-related services to the Company, including but not
11 limited to support in the following areas: vegetation management, Supervisory Control
12 and Data Acquisition (SCADA)³, operations and dispatch services, engineering
13 support, maintenance management, budgeting and cost analysis and controls, training,
14 regulatory, NERC compliance, and settlements.

15 The AEPSC test year O&M charges for SWEPCO transmission services fall
16 into the major cost categories shown below in Figure 4.

17 Figure 4
18 AEPSC Test Year O&M Charges for SWEPCO Transmission Services

O&M Costs Category	Adjusted Test Year Amount
Internal Labor	\$5,180,469
Outside Services	\$1,169,768
Other	\$2,285,815
Total	\$8,636,052

³ Supervisory Control and Data Acquisition (SCADA) is a computer system for gathering and analyzing real time data. SCADA systems are used to monitor and control equipment in the transmission network.

Internal Labor is approximately 60 percent of the AEPSC charges (employee salaries and benefits) to provide services as described above. SWEPCO witness Andrew R. Carlin supports the reasonableness of AEPSC's compensation and employee benefits.

Q. PLEASE PROVIDE THE RECENT TRENDS IN AEPSC BILLINGS TO THE COMPANY FOR TRANSMISSION SERVICES.

A. Figure 5 below shows the trend in AEPSC O&M billings to the Company for transmission services, by department, since 2017.

Figure 5
SWEPCO Affiliate O&M Transmission Expenses by Department

Department*	2017	2018	2019	Test Year
Transmission Business Operations**	\$260,626	\$603,576	\$818,199	\$840,272
Transmission Grid Development	\$3,371,382	\$4,824,272	\$4,268,199	\$4,411,729
Transmission Controls and Field Services	\$1,135,619	\$1,455,185	\$2,035,516	\$1,954,951
Corporate Safety & Health	\$438,968	\$472,777	\$467,401	\$444,686
Transmission Ventures, Strategy & Policy	\$489,524	\$649,512	\$778,005	\$787,052
Transmission Admin	\$89,317	\$80,491	\$194,358	\$197,362
Total AEPSC	\$5,785,436	\$8,085,813	\$8,561,678	\$8,636,052

*Department name changes that occurred during the test year are not reflected in Figure 5.

**Transmission Business Operations coordinates organization-wide efforts related to performance management, quality improvement, internal communications and includes Transmission Learning & Development (field technical skills training), process improvement functions, and the Risk & Process Controls analysis group.

Q. PLEASE EXPLAIN THE INCREASING TREND IN AFFILIATE CHARGES.

As shown in Figure 5, the majority of the affiliate charges are in the areas of Transmission Field Services and Transmission Grid Development. The increasing

1 trend in Affiliate O&M expenses is in line with the trend in overall SWEPCO
2 Transmission O&M expenses, which I discussed in Section VI.

3 Q. HOW HAS THE AEPSC STAFFING LEVEL FOR AEP TRANSMISSION
4 CHANGED SINCE 2017?

5 A. The number of AEPSC Transmission employees has steadily increased from 2017
6 through the end of the test year. Figure 6 below shows that over that time the number
7 of AEPSC employees has increased from 2,228 to 2,506.

8 Figure 6
9 AEPSC Transmission Employee Count

	12/31/17	12/31/18	12/31/19	Test Year
AEPSC Transmission	2,228	2,359	2,484	2,506

10 The majority of the increase in AEPSC staffing is in the Grid Development
11 organization, which is primarily responsible for the capital investment activities of AEP
12 Transmission (i.e., planning, engineering, and project management), and in the
13 Controls and Field Services organization, which is responsible for the maintenance and
14 restoration of the transmission system, as well as providing key commissioning
15 construction services in support of AEP Transmission's capital investments. As with
16 the trend in total AEP Transmission employees, the increase in AEPSC Transmission
17 personnel corresponds to the overall increase in both capital and O&M activities. See
18 the direct testimony of Company witness Smith for discussion of the capital investment
19 related impacts.

20 Q. PLEASE SUMMARIZE THE O&M TRANSMISSION SYSTEM ACTIVITIES
21 DRIVING THE TREND OF INCREASING AFFILIATE STAFF LEVELS.

1 A. From an O&M expense perspective, the increase in staff levels was necessary to
2 adequately support additional vegetation management, RTO requirements, NERC
3 compliance, maintenance of an aging transmission infrastructure, and implementation
4 and commissioning of new equipment installed during the Company's significant
5 number of capital investments.

6 Q. IS THE BENCHMARKING YOU DESCRIBED EARLIER CONCERNING THE
7 OVERALL TRANSMISSION O&M EXPENSES RELEVANT TO THE
8 REASONABLENESS OF AFFILIATE TRANSMISSION CHARGES?

9 A. Yes. The benchmarking studies I discussed above, which compared the Company's
10 overall transmission O&M costs to those of other electric utilities, support the
11 reasonableness of the affiliate O&M transmission charges. Although FERC Form 1
12 data does not separately record affiliate charges, making it impossible to use FERC
13 Form 1 data to directly benchmark affiliate expenses, affiliate expenses are included in
14 the total costs reported, directly influencing the overall level of O&M expenses.
15 Moreover, the transmission services I have described are provided to the overall
16 transmission operation using a combination of service company employees, SWEPCO
17 employees, and contractors. Consequently, benchmarking at the overall cost level is
18 consistent with the manner in which the services are provided and managed, and
19 supports the conclusion that the affiliate portion of those costs are also the product of
20 effective management and contribute to an overall reasonable level of costs.

21 For further discussion of the billing, management oversight and controls of the
22 AEPSC charges, see the direct testimony of Company witness Brian J. Frantz.

23

1 VIII. CONCLUSION

2 Q. PLEASE SUMMARIZE THE EVIDENCE YOU HAVE PRESENTED TO
3 DEMONSTRATE THE NECESSITY AND REASONABLENESS OF THE AEPSC
4 O&M TRANSMISSION CHARGES TO SWEPCO.

5 A. SWEPCO Transmission benefits from the economies of scale gained by sharing the
6 common support staff and resources provided by AEPSC, which help provide cost and
7 operational efficiencies. Using services provided by AEPSC employees, the Company
8 is able to efficiently and cost-effectively operate and maintain its transmission system.
9 The AEPSC charges to SWEPCO are included in the Company's overall FERC Form
10 1 transmission expenses, which when benchmarked showed that the Company excelled
11 when compared to other peer electric utilities. All of these things collectively support
12 the conclusion that the AEPSC test year O&M expenses for transmission services are
13 necessary and reasonable.

14 Q. WHAT DO YOU CONCLUDE ABOUT THE REASONABLENESS AND
15 NECESSITY OF THE COMPANY'S OVERALL TRANSMISSION O&M
16 EXPENSES?

17 A. The Company's overall test year O&M expense is both reasonable and necessary. This
18 conclusion is supported by the Company's: 1) historical levels of O&M expense; 2)
19 staffing trends; and 3) benchmarking of AEP Transmission O&M expense against other
20 similar electric utilities. This evidence collectively supports the conclusion that the
21 Company's overall Transmission test year O&M expenses are necessary, reasonable,
22 and in line with other peer group utilities.

1 Q. IN YOUR OPINION, IS THE COMPANY'S TRANSMISSION TEST YEAR O&M
2 EXPENSE REPRESENTATIVE OF ON-GOING LEVEL O&M EXPENSES?

3 A. Yes, it is.

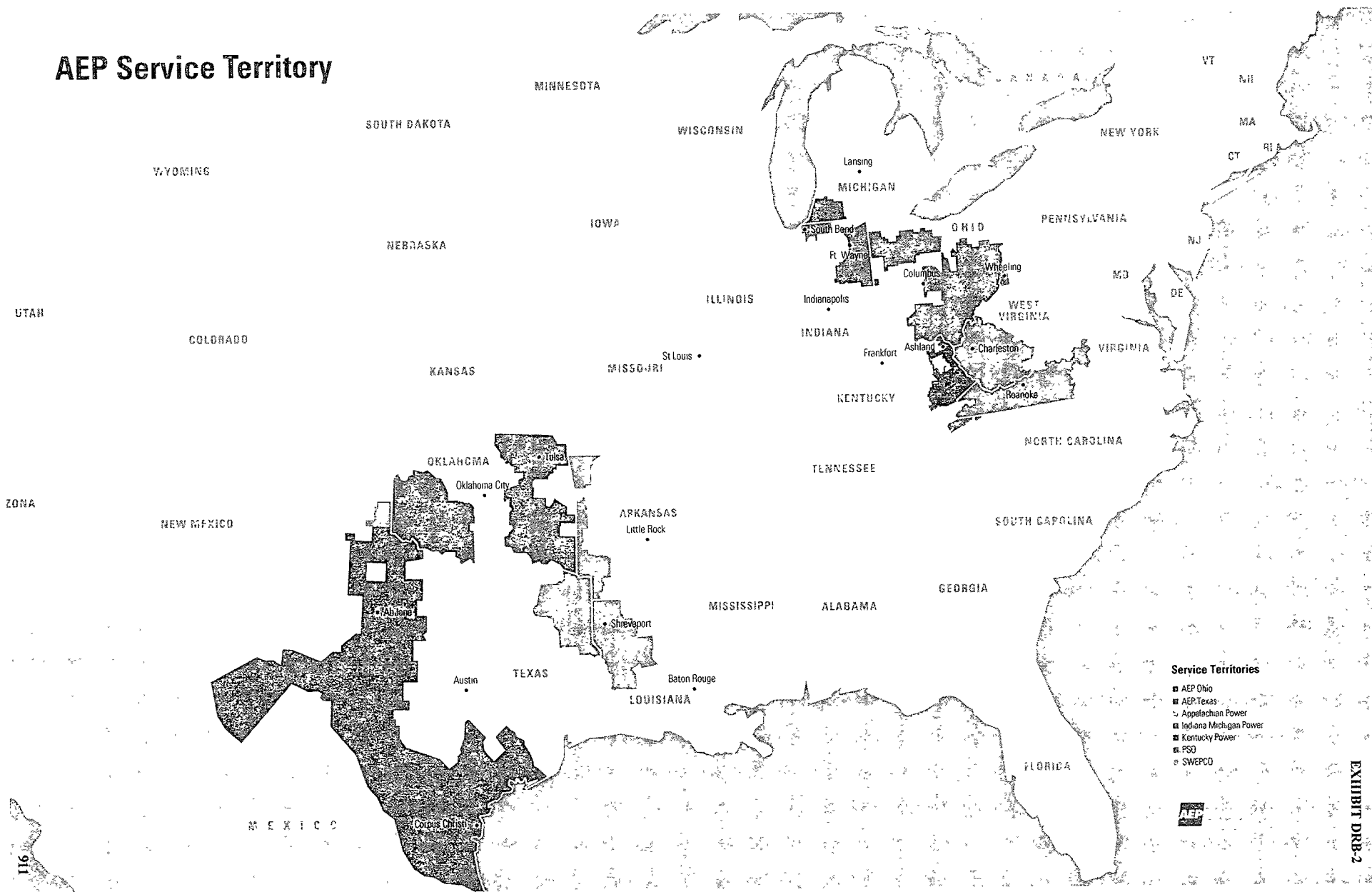
4 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

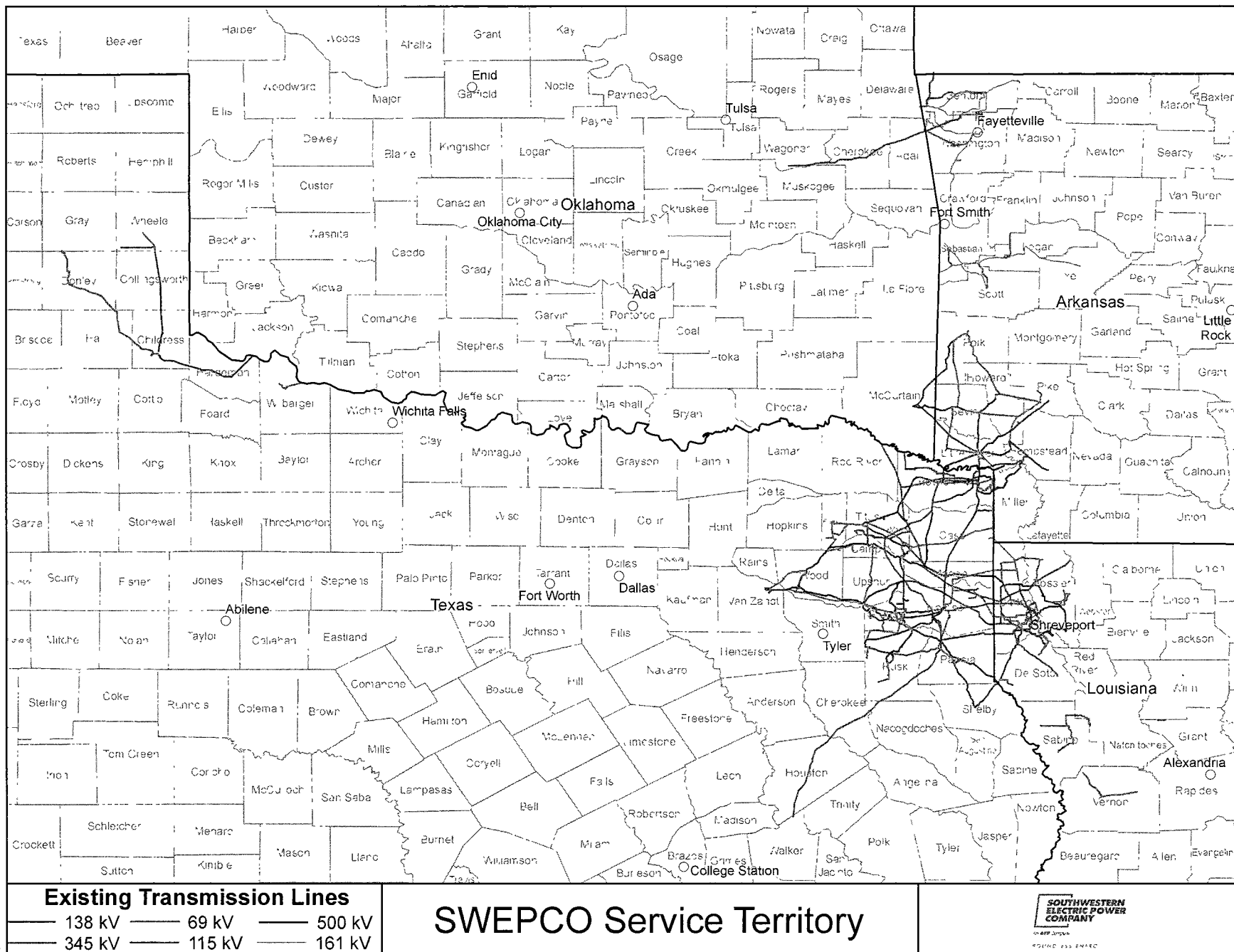
5 A. Yes, it does.

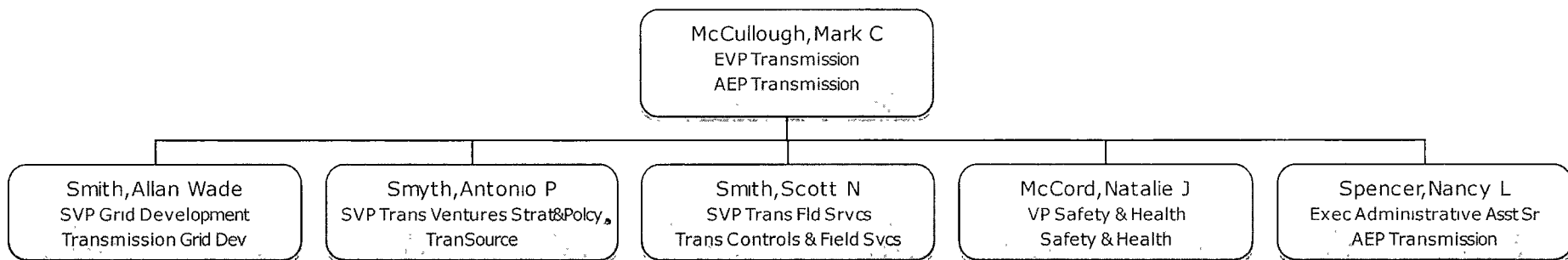
[illegible]

EXHIBIT DRB-1

AEP Service Territory







Benchmarking Peer Groups

Texas Peer Group
AEP Texas Inc
CenterPoint Energy Inc
El Paso Electric Co
Entergy Texas Inc
Oncor Electric Delivery
Southwestern Electric Power Co
Southwestern Public Service Co

South Central Peer Group
AEP Texas Inc
CenterPoint Energy Inc
CLECO Power LLC
El Paso Electric Co
Entergy Arkansas LLC
Entergy Louisiana LLC
Entergy New Orleans Inc
Entergy Texas Inc
Eversource Metro Inc
ITC Great Plains LLC
Oklahoma Gas & Electric Co
Oncor Electric Delivery
Public Service Co of New Mexico
Public Service Co of Oklahoma
Southwestern Electric Power Co
Southwestern Public Service Co

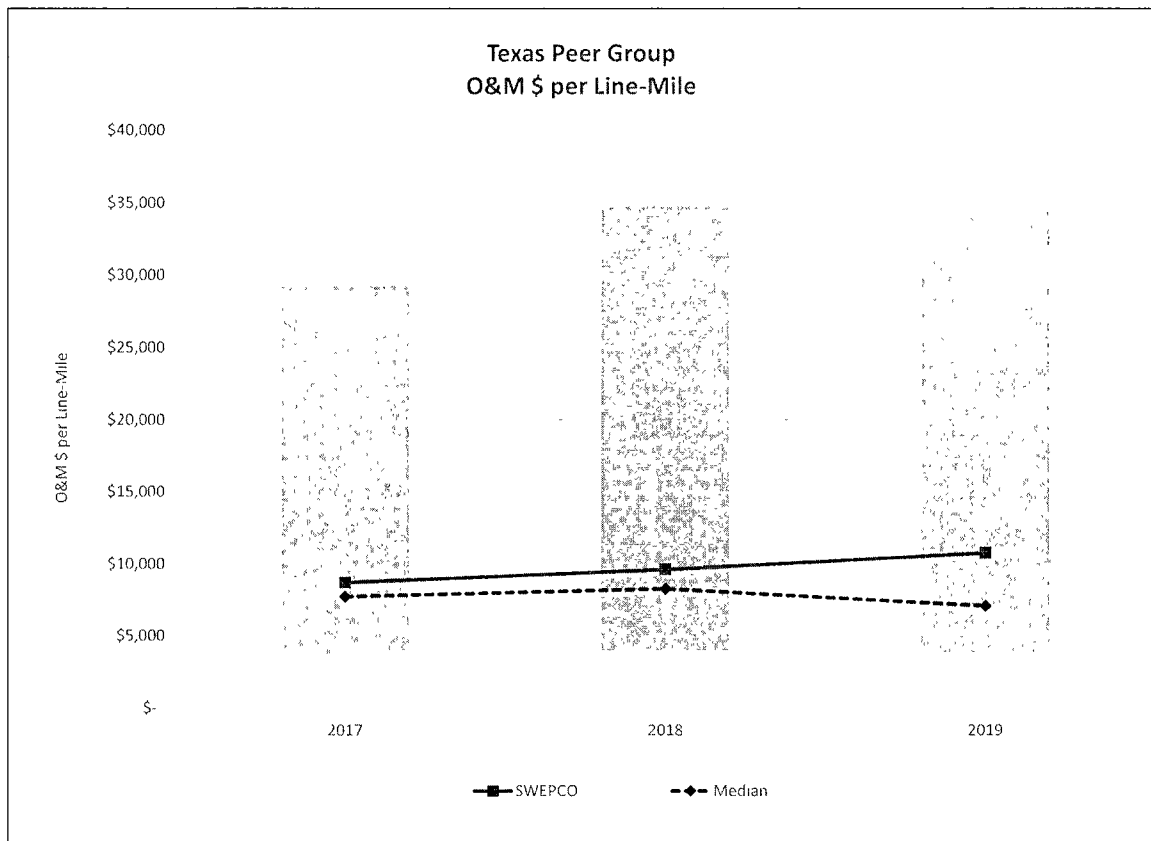
National Peer Group
AEP Appalachian Transmission Co Inc*
AEP Generating Co*
AEP Indiana Michigan Transmission Co Inc
AEP Kentucky Transmission Co Inc*
AEP Ohio Transmission Co Inc
AEP Oklahoma Transmission Co Inc
AEP Southwestern Transmission Co Inc*
AEP Texas Inc
AEP West Virginia Transmission Co Inc
Alabama Power Co
Allegheny Generating Co (The)**
Ameren Illinois
Ameren Illinois Transmission Co
Ameren Missouri
American Transmission Co LLC
American Transmission Systems Inc
Appalachian Power Co
Arizona Public Service Co
Atlantic City Electric Co
Attala Transmission LLC**
Baltimore Gas & Electric Co
CenterPoint Energy Houston Electric LLC
Central Maine Power Co
CLECO Power LLC
Cleveland Electric Illuminating Co (The)
Commonwealth Edison Co
Commonwealth Edison Co of Indiana Inc
Connecticut Light & Power Co (The)
Connecticut Yankee Atomic Power Co**
DATC Path 15 LLC**
Delmarva Power & Light Co
Dominion Energy South Carolina
Duke Energy Carolinas
Duke Energy Florida
Duke Energy Indiana
Duke Energy Kentucky***
Duke Energy Ohio
Duke Energy Progress
El Paso Electric Co
Entergy Arkansas LLC
Entergy Louisiana LLC
Entergy Mississippi LLC
Entergy New Orleans Inc
Entergy Texas Inc
Eversource Generating Inc**
Eversource Kansas Central Inc
Eversource Kansas South Inc
Eversource Metro Inc
Eversource Missouri West Inc
EWB Marketing LP**
Florida Power & Light Co
Georgia Power Co
Gulf Power Co
Indiana Kentucky Electric Corp
Indiana Michigan Power Co
ITC Great Plains LLC
ITC Interconnection LLC**
ITC Midwest LLC
ITC Transmission
Jersey Central Power & Light Co
Kentucky Power Co
Kentucky Utilities Co
Kingsport Power Co

National Peer Group (cont'd)
Louisville Gas & Electric Co
Maine Electric Power Co Inc
Maine Yankee Atomic Power Co**
Massachusetts Electric Co*
Metropolitan Edison Co*
Michigan Electric Transmission Co
Mid Atlantic Interstate Transmission LLC
MidAmerican Central California Transco LLC**
MidAmerican Energy Co
Mississippi Power Co
Monongahela Power Co
Narragansett Electric Co
National Grid Generation LLC**
Nevada Power Co
New England Electric Transmission Corp
New England Hydro Transmission Corp
New England Hydro Transmission Electric Co Inc*
New England Power Co
New Hampshire Transmission LLC**
New York State Electric & Gas Corp
Niagara Mohawk Power Corp
Northern States Power Co (Minnesota)
Northern States Power Co (Wisconsin)
NSTAR Co d/b/a Eversource Energy
Ohio Edison Co
Ohio Power Co***
Ohio Valley Electric Corp
Oklahoma Gas & Electric Co
Oncor Electric Delivery
Pacific Gas & Electric Co
PacificCorp
PECO Energy Co*
Pennsylvania Electric Co*
Pennsylvania Power Co**
Perryville Energy Partners LLC**
Pioneer Transmission LLC**
Potomac Edison Co (The)
Potomac Electric Power Co
PPL Electric Utilities Corp
Public Service Co of Colorado
Public Service Co of New Hampshire
Public Service Co of New Mexico
Public Service Co of Oklahoma
Public Service Electric & Gas Co
Rochester Gas & Electric Corp
San Diego Gas & Electric Co
Sharyland Utilities LP
Sierra Pacific Power Co
South Carolina Generating Co Inc**
Southern California Edison Co
Southern Electric Generating Co
Southern Indiana Gas & Electric Co
Southwestern Electric Power Co
Southwestern Public Service Co
System Energy Resources Inc**
Toledo Edison Co (The)
Trans Allegheny Interstate Line Co
United Illuminating Co (The)*
Virginia Electric & Power Co***
West Penn Power Co
Western Massachusetts Electric Co
Wheeling Power Co
Yankee Atomic Electric Co**

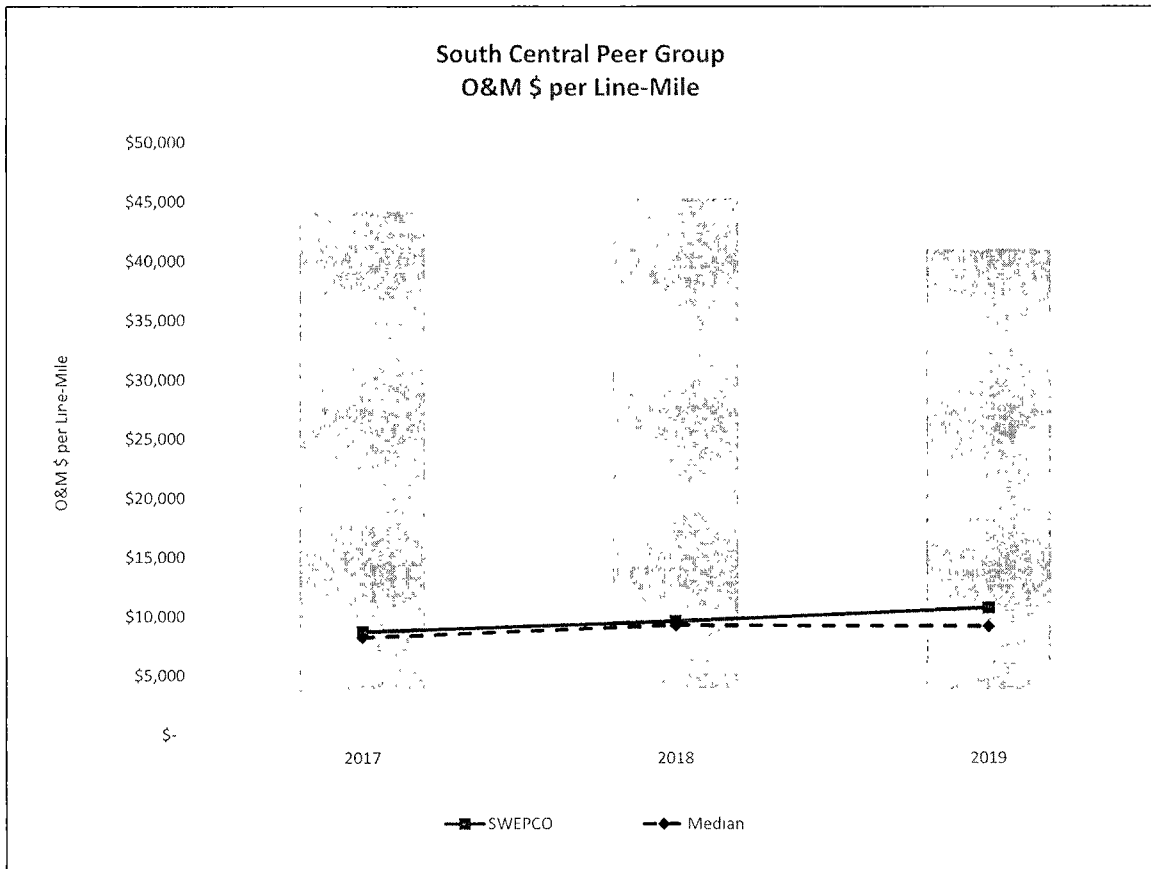
* Companies excluded from Benchmarking in the years O&M \$ per Line-Mile over \$100K

** Companies excluded from Benchmarking in the years that they had 0 line miles

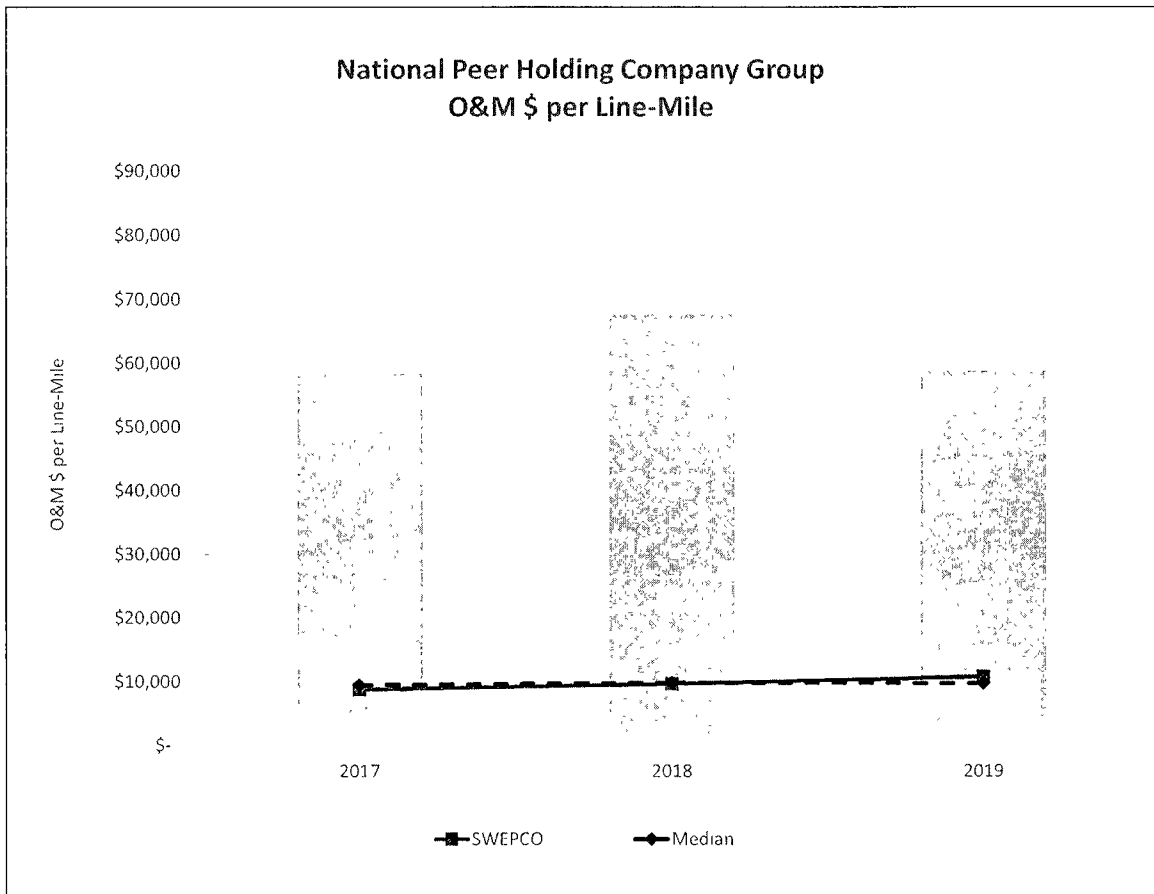
*** Companies excluded from Benchmarking in the years that O&M \$ per Line-Mile less than 0



	2017	2018	2019
Max	\$29,300	\$34,767	\$34,400
Min	\$3,654	\$3,972	\$3,819
SWEPCO	\$8,694	\$9,594	\$10,731
Median	\$7,718	\$8,254	\$7,062



	2017	2018	2019
Max	\$44,202	\$45,355	\$40,989
Min	\$3,654	\$3,972	\$3,819
SWEPCO	\$8,694	\$9,594	\$10,731
Median	\$8,222	\$9,274	\$9,164



	2017	2018	2019
Max	\$58,458	\$67,647	\$58,803
Min	\$3,654	\$13	\$3,819
SWEPCO	\$8,694	\$9,594	\$10,731
Median	\$9,432	\$9,751	\$9,700

EXECUTIVE SUMMARY OF WAYMAN L. SMITH

Wayman L. Smith, Director, West Transmission Planning for American Electric Power Service Corporation (AEPSC), presents testimony supporting the transmission infrastructure improvements for which Southwestern Electric Power Company (SWEPCO) seeks recovery in this proceeding.

Mr. Smith first summarizes the physical configuration and manner of planning and operation of both American Electric Power Company, Inc.'s (AEP) and SWEPCO's transmission systems. He testifies that AEPSC and SWEPCO coordinate with respect to planning, construction, operations and maintenance, and that AEP's Transmission organization enables SWEPCO to benefit from economies of scale. He explains the overall organizational structure of the AEP Transmission organization and describes SWEPCO's capital programs to maintain the reliability of its transmission system.

Mr. Smith summarizes the major transmission capital additions since SWEPCO's last base rate case. Mr. Smith describes major transmission projects placed in service in four categories: Asset Improvement Projects, Customer Service Projects, Reliability Projects, and RTO Projects. He testifies that \$636,679,027 of transmission investment has been placed in service since SWEPCO's last base rate case and that \$337,916,966 of this investment was reviewed by the Commission in SWEPCO's 2019 Transmission Cost Recovery Factor (TCRF) case, Docket No. 49042. He also testifies that the capital projects identified as RTO Projects are attributable to Southwest Power Pool (SPP) requirements.

Finally, Mr. Smith explains how SWEPCO keeps the cost of transmission capital projects reasonable. He describes how competitive bidding is used to select qualified contractors and to procure equipment and materials and how a robust project estimating

process is used to prepare project estimates that are reviewed and approved by multiple persons based on their functional areas and expertise. During the construction process, financial reports are reviewed monthly to monitor the variance between the project estimated and actual costs to ensure projects are completed within budget and on time.

Estimate reviews are conducted during and after the construction of select projects as a function of the project cost monitoring process. The estimating process is reviewed by an estimating department and process improvement teams to look for opportunities to cut costs and more accurately estimate project construction costs. The Company also looks at opportunities to reduce costs by improving design standards such as using modular designs, reducing material costs by working with equipment manufacturers and suppliers, and working with labor contractors to work more effectively. Mr. Smith explains that this capital budgeting and approval process also ensures that the portion of SWEPCO transmission capital costs consisting of affiliate charges is appropriate, reasonable and necessary.

PUBLIC UTILITY COMMISSION OF TEXAS

APPLICATION OF
SOUTHWESTERN ELECTRIC POWER COMPANY
FOR AUTHORITY TO CHANGE RATES

DIRECT TESTIMONY OF
WAYMAN L. SMITH
FOR
SOUTHWESTERN ELECTRIC POWER COMPANY

OCTOBER 2020

TESTIMONY INDEX

<u>SECTION</u>	<u>PAGE</u>
I. INTRODUCTION AND QUALIFICATIONS	1
II. PURPOSE AND BACKGROUND	2
III. AEP AND SWEPCO TRANSMISSION SYSTEMS	3
IV. AEP TRANSMISSION ORGANIZATION	4
V. TRANSMISSION SYSTEM PLANNING PROCESS	5
VI. SWEPCO'S TRANSMISSION CAPITAL INVESTMENTS	10
VII. CONCLUSION.....	27

EXHIBITS

EXHIBIT WLS-1	AEP Transmission System Characteristics
EXHIBIT WLS-2	AEP Service Territory
EXHIBIT WLS-3	SWEPCO Transmission System Map

GLOSSARY

AEP	American Electric Power Company, Inc.
AEPSC	American Electric Power Service Corporation
AEP Texas	AEP Texas Inc.
ANSI	American National Standards Institute
Company	Southwestern Electric Power Company (SWEPCO)
ERCOT	Electric Reliability Council of Texas
ETT	Electric Transmission Texas, LLC
FERC	Federal Energy Regulatory Commission
HVDC	High Voltage Direct Current
MRO	Midwest Reliability Organization
NERC	North American Electric Reliability Corporation
NERC-CIP	North American Electric Reliability Corporation-Critical Infrastructure Protection
NESC	National Electrical Safety Code
NTC	Notification to Construct
NTEC	North Texas Electric Cooperative
O&M	Operation and Maintenance
OATT	Open Access Transmission Tariff
OK Transco	Oklahoma Transmission Company, Inc.
OSHA	Occupational Safety and Health Administration
P&C	Protection and Control
PSO	Public Service Company of Oklahoma
RF	Reliability First
RTO	Regional Transmission Organization
RTU	Remote Terminal Unit
SPP	Southwest Power Pool
SWEPCO	Southwestern Electric Power Company
TCRF	Transmission Cost Recovery Factor
TRE	Texas Reliability Entity

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

I. INTRODUCTION AND QUALIFICATIONS

- Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION IN THE COMPANY.
- A. My name is Wayman L. Smith. My business address is 212 E. 6th Street, Tulsa, Oklahoma 74119. I am Director, West Transmission Planning for American Electric Power Service Corporation (AEPSC), a subsidiary of American Electric Power Company, Inc. (AEP).
- Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS DIRECTOR, WEST TRANSMISSION PLANNING FOR AEP.
- A. My current responsibilities include transmission planning activities in AEP's western transmission system, which includes the operating companies of Southwestern Electric Power Company (SWEPCO or the Company), which operates in portions of Louisiana, Texas, and Arkansas, AEP Texas Inc. (AEP Texas) located in the Electric Reliability Council of Texas (ERCOT), and Public Service Company of Oklahoma (PSO). Both SWEPCO and PSO are located in the Southwest Power Pool (SPP) Regional Transmission Organization (RTO). Additionally, the AEP western transmission system includes AEP Oklahoma Transmission Company, Inc. (OK Transco) transmission facilities located in SPP, and transmission facilities of Electric Transmission Texas, LLC (ETT), a joint venture of AEP and Berkshire Hathaway Energy, located in ERCOT.
- Q. PLEASE DESCRIBE YOUR EDUCATIONAL QUALIFICATIONS AND PROFESSIONAL BUSINESS EXPERIENCE.

1 A. I graduated Cum Laude from The University of Tulsa with Bachelor and Master of
2 Science degrees in Electrical Engineering in 1989 and 1993, respectively.

3 I have worked for AEP for over 20 years and have over twenty five years of
4 power industry experience. I have worked for AEP in various capacities including
5 Transmission Planning Engineer, Project Manager in both Transmission Planning and
6 Integrated Resource Planning, Manager of Request for Proposals, Manager of
7 Transmission Interface with the SPP RTO and ERCOT, and currently as Director, West
8 Transmission Planning. I have also worked for other firms as an energy trader and
9 consultant.

10 Q. ARE YOU SPONSORING ANY SCHEDULES TO THE RATE FILING PACKAGE?

11 A. No.

12 Q. WHAT EXHIBITS DO YOU SPONSOR IN THIS PROCEEDING?

13 A. I sponsor the exhibits listed in the table of contents to my testimony.

14

15 II. PURPOSE AND BACKGROUND

16 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

17 A. The purpose of my testimony is to support the transmission infrastructure
18 improvements for which SWEPCO seeks recovery in this proceeding. These
19 improvements are capital additions required to provide safe and reliable transmission
20 service in the SWEPCO transmission service area. My testimony addresses the
21 following topics:

- 22 • A description of the AEP and SWEPCO transmission systems, and how
23 SWEPCO's transmission system is planned and operated; and

- The necessity and reasonableness of SWEPCO's transmission capital additions placed in service from July 1, 2016 through March 31, 2020.

III. AEP AND SWEPCO TRANSMISSION SYSTEMS

Q. PLEASE PROVIDE AN OVERVIEW OF THE AEP TRANSMISSION SYSTEM.

A. The AEP transmission system is an expansive system spanning AEP's eleven-state service territory and three North American Electric Reliability Corporation (NERC) Regional Entities, including Texas Reliability Entity (TRE), Midwest Reliability Organization (MRO), and Reliability First (RF). AEP's transmission system encompasses facilities operating at voltages from 23 kV to 765 kV, and consists of approximately 38,000 miles of circuitry. Of this total, approximately 8,100 miles operate at Extra High Voltage -- 345 kV, 500 kV or 765 kV. The AEP transmission system is also highly interconnected with its neighboring utility transmission systems at numerous interconnection points.

Q. PLEASE DESCRIBE THE SWEPCO TRANSMISSION SYSTEM.

A. The SWEPCO transmission system delivers power and energy from generators throughout the SPP RTO footprint to loads served by the SWEPCO distribution system and loads served by other utilities, cooperatives, and municipalities within the SWEPCO service area. It also delivers power and energy through an asynchronous interconnection with ERCOT and through other synchronous interconnections with other NERC regions to loads within those regions. The voltage levels of the SWEPCO transmission facilities range from 69 kV to 345 kV. There are approximately 4,138 circuit miles of transmission lines in the SWEPCO system, stretching from near Grand

1 Saline, Texas east to Haughton, Louisiana and from the northern Arkansas border with
2 Missouri to near Crockett, Texas. SWEPCO also owns transmission facilities in the
3 Texas Panhandle area from Shamrock, Texas to Vernon, Texas.

4 SWEPCO, in partnership with Oncor and CenterPoint, also owns one High
5 Voltage Direct Current (HVDC) interconnection with ERCOT. This East HVDC Tie
6 (Welsh) in northeastern Texas connects ERCOT to SPP.

7 SWEPCO is interconnected with the following utilities: The Empire District
8 Electric Company; Associated Electric Cooperative, Inc.; Oklahoma Gas and Electric
9 Company; Grand River Dam Authority; Southwestern Public Service Company;
10 Southwestern Power Administration; Western Farmers Electric Cooperative; PSO;
11 CLEO Power, LLC; Entergy Arkansas, LLC; Entergy Louisiana, LLC; Entergy Texas,
12 LLC; Arkansas Electric Cooperative Corporation; East Texas Electric Cooperative,
13 Inc.; and Tex-La Electric Cooperative of Texas, Inc.

14 SWEPCO has transferred functional control of its transmission facilities to the
15 SPP RTO. SWEPCO purchases Network Integration Transmission Service under the
16 SPP Open Access Transmission Tariff (OATT) to serve its retail and wholesale
17 customers. SWEPCO facilities also help facilitate the delivery of energy in the SPP
18 Energy market.

19
20 IV. AEP TRANSMISSION ORGANIZATION

21 Q. WHAT GROUP IS RESPONSIBLE FOR PLANNING AND DESIGNING THE
22 SWEPCO TRANSMISSION SYSTEM?

1 A. The AEP Transmission Organization plans, constructs, operates and manages the
2 SWEPCO transmission system as part of its responsibility through a coordinated effort
3 with SWEPCO leadership and the SPP. This organization is comprised of AEPSC
4 employees, SWEPCO employees, and contractors.

5 Q. PLEASE DESCRIBE THE PRIMARY FUNCTIONAL DEPARTMENTS WITHIN
6 THE AEP TRANSMISSION ORGANIZATION IN PLACE DURING THE TEST
7 YEAR THAT SUPPORTED SWEPCO'S TRANSMISSION NEEDS.

8 A. The AEP Transmission organization consists of four primary functional departments
9 that support SWEPCO's Transmission needs. These four functional departments that
10 report directly to the Executive Vice President – AEP Transmission are as follows:
11 Transmission Grid Development, Transmission Controls and Field Services, Corporate
12 Safety and Health, and Transmission Ventures Strategy and Policy. Company witness
13 Daniel R. Boezio addresses these departments in more detail in his direct testimony.
14 Elements of the four functional departments support the planning, design, construction,
15 operation and maintenance of the transmission facilities for which SWEPCO seeks cost
16 recovery in this rate case and that I describe and support in my direct testimony.

17

18 V. TRANSMISSION SYSTEM PLANNING PROCESS

19 Q. PLEASE DESCRIBE HOW AEP PLANS AND CONSTRUCTS THE SWEPCO
20 TRANSMISSION SYSTEM.

21 A. The SWEPCO transmission system is planned, constructed, operated, and maintained
22 through the coordinated efforts of the AEP Transmission Organization (described more
23 fully in Section IV of my testimony) and SWEPCO, with the overall objective to serve

1 the present and future electrical transmission requirements in SWEPCO's transmission
2 service area in an economic, safe, reliable, and environmentally compatible manner.
3 The AEP Transmission Organization provides economies of scale by enabling affiliate
4 companies to share common support staff and resources that help provide cost and
5 operational efficiencies.

6 SWEPCO is interconnected to several of the other transmission owners in SPP,
7 as well as ERCOT. Therefore, SWEPCO works closely with neighboring transmission
8 providers to plan and operate the transmission grid. SPP's transmission planning and
9 operational requirements are set out in the SPP Tariff and the SPP Membership
10 Agreement¹.

11 Q. WHAT BENEFITS DO ROBUST ELECTRIC TRANSMISSION SYSTEMS
12 PROVIDE TO CUSTOMERS?

13 A. As new transmission lines are put in service, more paths become available for energy
14 to flow to loads. Having a robust transmission system enables and seeks to ensure that
15 sufficient transmission paths on the network are in place to provide continuous power
16 delivery to the Company's retail distribution electric delivery network in order to serve
17 end-use customers, transmission level customers, and to both retail and other wholesale
18 providers. Transmission power delivery is further enhanced through the incorporation
19 of new technologies that efficiently integrate new generation and loads on SWEPCO's
20 electric delivery network.

¹ <https://www.spp.org/documents/13272/current%20bylaws%20and%20membership%20agreement%20tariff.pdf>

1 In the event of natural disasters such as hurricanes or tornadoes, for example,
2 that can devastate an electric system, the transmission system must be robust enough
3 to provide service to customers in other areas of the system. While the damage may be
4 severe to specific portions of the transmission system, the transmission system's design
5 allows electricity to be diverted around the damaged facilities to continue to reliably
6 serve load in areas not geographically near the storm-damaged facilities. Natural
7 disasters can cause major damage to the electrical grid but these types of outages
8 confirm the need for investment in both transmission and distribution to reliably serve
9 load. The combination of a robust transmission and distribution system provides a
10 public benefit in increased reliability to customers.

11 Furthermore, a transmission system with sufficient electric delivery paths also
12 enables the provision of electric delivery service more economically to customers
13 because it more effectively operates to help relieve transmission constraints and
14 congestion that exist on a less robust network. A robust system also supports and
15 enables the addition of new customer load growth on the Company's system. Having
16 robust transmission capacity with multiple, sufficient delivery pathways on
17 SWEPCO's network benefits residential, commercial, and industrial customers alike in
18 its service area by ensuring that such customers are able to initiate and take service as
19 effectively and as expeditiously as possible. Furthermore, the Company's robust
20 transmission system is interconnected with the transmission systems of other
21 transmission service providers to assist in the delivery of power reliably from
22 generators to wholesale customers throughout the SPP RTO region.

1 Q. PLEASE PROVIDE AN OVERVIEW OF THE RELIABILITY OF THE SWEPCO
2 TRANSMISSION SYSTEM IN RECENT YEARS.

3 A. The SWEPCO transmission system continues to provide reliable service within areas
4 that the Company provides transmission service and has consistently met NERC
5 transmission planning reliability criteria. AEP has successfully completed various
6 NERC Regional Entity audits and performed the annual compliance self-certifications
7 for each of the regions AEP serves, including the SPP RTO region, since the NERC²
8 Reliability Standards requirements were in effect.

9 Q. FROM A TRANSMISSION CAPITAL PERSPECTIVE, WHAT STEPS DOES
10 SWEPCO TAKE TO MAINTAIN A RELIABLE TRANSMISSION SYSTEM?

11 A. A reliable transmission system that is well-maintained and meets applicable state and
12 federal standards is required to maintain reliable electric service to customers. Each
13 year, SWEPCO completes various major transmission reliability projects that expand
14 its transmission system to meet load growth and to connect new customers, including
15 new customer loads as well as new generation additions. These improvements range
16 from upgrading existing circuits to installation of new stations and the associated
17 transmission lines needed to maintain reliable service.

18 In addition, SWEPCO has an ongoing program to refurbish the existing
19 transmission infrastructure, replacing equipment and rebuilding lines based on their
20 condition and performance. As the transmission owner, it is SWEPCO's obligation
21 and responsibility to manage and maintain this diverse set of assets to provide for a

² <https://www.nerc.com/pa/Stand/Pages/default.aspx>

1 safe, reliable, flexible, efficient, cost-effective and resilient transmission system that
2 meets the needs of all customers while complying with Federal, State, RTO and
3 industry standards. This requires, among other considerations, that AEP Transmission
4 determine when the useful life of these transmission assets is coming to an end and
5 when the capability of those assets no longer meets current needs, so that appropriate
6 improvements can be deployed. AEP Transmission refers to this list of issues as
7 transmission owner identified needs. The transmission owner identified needs result
8 from the evaluation, performance, and inspection, and/or testing of station,
9 transmission line, and protection and control (P&C) equipment. Examples of such
10 equipment include:

- 11 • Station equipment – circuit breakers, transformers, switches, reactive power
12 devices, station batteries, control buildings, supporting structures, and
13 associated facilities;
- 14 • Transmission Line equipment – structures, conductors, switches, insulators and
15 hardware; and
- 16 • P&C equipment – protective relays and associated equipment—e.g., power line
17 carriers, instrument transformers, and communication channels—and remote
18 terminal units (RTU).

19 Q. WHAT BENEFITS DO SWEPCO CUSTOMERS RECEIVE FROM INVESTMENTS
20 TO ADDRESS TRANSMISSION OWNER IDENTIFIED NEEDS?

21 A. Addressing the transmission owner identified needs will result in the following
22 benefits:

- 23 • Safe operation of the electric grid.
- 24 • Reduction in frequency of outage interruptions.
- 25 • Reduction in duration of outage interruptions.
- 26 • Improvement in service reliability and adequacy to customers.

- 1 • Reduction of risk of service disruptions (improved resiliency) associated with
- 2 man-made and environmental threats.
- 3 • Proactive correction of reliability constraints that stem from asset failures.
- 4 • Increased system flexibility associated with day-to-day operations.
- 5 • Effective utilization of resources to provide efficient and cost-effective service
- 6 to customers.

7 Q. WHAT OTHER EFFORTS HAVE BEEN UNDERTAKEN TO MAINTAIN AND
8 ENHANCE THE RELIABILITY OF SWEPCO'S TRANSMISSION FACILITIES?

9 A. SWEPCO continues to make system improvements to maintain and enhance its service
10 reliability. SWEPCO's transmission system facilities continue to age, which
11 necessitates additional maintenance and targeted replacement of transmission
12 equipment. Additionally, NERC mandatory reliability standards and SPP Protocols,
13 including SPP Planning & Operating Guides, must continue to be taken into
14 consideration and met in order for SWEPCO to maintain safe and reliable transmission
15 service. In particular, SPP's Protocols and its Planning & Operating Guides also
16 include standards that may be more stringent than those addressed in the NERC
17 Reliability Standards.

18

19 VI. SWEPCO'S TRANSMISSION CAPITAL INVESTMENTS

20 Q. HOW MUCH CAPITAL HAS SWEPCO INVESTED TO ENHANCE ITS
21 TRANSMISSION SYSTEM BEYOND THAT INCLUDED IN THE LAST RATE
22 PROCEEDING?

23 A. The Company has invested approximately \$636.7 Million in the transmission system
24 since the last base rate case.

1 Q. DID SWEPCO INCUR OPERATION AND MAINTENANCE (O&M) COSTS
2 RELATED TO TRANSMISSION DURING THE TEST YEAR?

3 A. Yes. For more information regarding O&M costs, please see the direct testimony of
4 Company witness Boezio.

5 Q. PLEASE DESCRIBE THE CATEGORIES OF TRANSMISSION CAPITAL
6 ADDITIONS THAT HAVE BEEN BOOKED TO PLANT IN-SERVICE FOR
7 SWEPCO SINCE THE LAST BASE CASE IN 2016.

8 A. The major categories of transmission capital additions are listed below in Table 1.
9 There are many ways to categorize SWEPCO transmission capital additions, so
10 SWEPCO has chosen four high-level categories that are representative of the driving
11 forces behind the capital additions: Asset Improvements, Customer Service,
12 Reliability, and RTO.

13 Asset Improvement projects are designed to repair or replace aging and obsolete
14 transmission equipment in order to mitigate potential problems that can cause an
15 interruption of service and implement corrective actions to maintain the reliable
16 operation of the transmission equipment. These projects include both line and station
17 equipment and have a significant impact on reducing outages and improving customer
18 reliability.

19 Customer Service projects include new or expanded service to customers,
20 relocation projects, and projects that are different from the other project categories
21 including miscellaneous projects or transmission projects that support other business
22 units within SWEPCO.

1 Reliability projects are designed to upgrade or replace transmission equipment
2 in order to mitigate potential problems that could cause an interruption of service,
3 implement corrective actions to maintain the reliable operation of the transmission
4 system, expand or upgrade the communications systems necessary to ensure secure and
5 reliable system operation, and provide major equipment spares. Additionally, some
6 projects are intended to address potential operational deficiencies that could cause
7 above average outage frequencies or durations. Examples of Reliability projects
8 include circuit breaker replacement, improvement of lightning shielding of lines, and
9 additions of line sectionalizing devices (switches/circuit breakers, etc.).

10 RTO projects are those that are needed to address potential NERC, SPP and/or
11 AEP reliability criterion violations and are required to be submitted through the SPP
12 transmission planning process.

13 The sum total of the capital additions since the last base case is approximately
14 \$636.7 million, and is shown in Table 1.

1
2

Table 1
Transmission Capital Projects by Category

Project Category	Project Description	Total Cost
Asset Improvement	SWEPCO - Line Rebuild Program	\$204,611,709
Asset Improvement	SWEPCO Station Proactive Rehab	\$34,262,289
Asset Improvement	Replace/Refurbish - SWEPCO	\$24,355,315
Asset Improvement	Asset Replacement	\$6,864,380
Asset Improvement Total		\$270,093,693
Customer Service	Cass Tap to Roach	\$10,404,960
Customer Service	Leaside Way	\$25,827,518
Customer Service Total		\$36,232,478
Reliability	Trans Capital Blanket - SWEPCO	\$35,757,343
Reliability	Welsh HVDC Tie	\$17,794,561
Reliability	Telecom Fiber Build Out-SWEPCO	\$15,886,007
Reliability	SWP Region Major Eq/Spares Pro	\$7,763,206
Reliability	SW/Telecom Upgrades	\$6,495,906
Reliability Total		\$83,697,023
RTO	Valliant to NW Texarkana 345 k	\$92,673,383
RTO	SWEPCO-TX/Longview Heights -	\$27,089,097
RTO	Brownlee - North Market 69 kV	\$16,538,199
RTO	Evenside-NW Henderson	\$11,171,456
RTO	Chamber Springs - Farmington	\$10,668,801
RTO	Broadmoor - Fort Humbug 69 kV:	\$6,516,184
RTO	Ellerbe Road - Lucas 69 kV	\$5,840,127
RTO Total		\$170,497,246
	Total of Projects less than \$5 Million	\$76,158,586
Grand Total		\$636,679,027

3 Q. HAS ANY OF SWEPCO'S TRANSMISSION INVESTMENT SINCE ITS LAST
4 BASE RATE CASE BEEN REVIEWED BY THE COMMISSION?

5 A. Yes. In Docket No. 49042, SWEPCO's 2019 Transmission Cost Recovery Factor
6 (TCRF) case, the Commission reviewed the Company's transmission capital additions
7 for the period July 1, 2016 through September 30, 2018 and established rates that
8 allowed SWEPCO to recover its reasonable and necessary costs for transmission

1 infrastructure improvements. As a result, \$337,916,966 of the transmission investment
2 shown in Table 1 above has already been reviewed by the Commission.

3 Q. ARE THE SWEPCO CAPITAL EXPENDITURES IMPACTED BY ITS
4 MEMBERSHIP IN SPP?

5 A. Yes.

6 Q. PLEASE EXPLAIN.

7 A. With the issuance of FERC Order 2000, and the creation of RTOs, the nature of how
8 the transmission system is planned and used has changed. In the SPP region, generators
9 and transmission customers submit transmission service requests to SPP to facilitate
10 power deliveries depending on their needs. SPP conducts studies to identify the
11 transmission upgrades needed in the SPP region to accommodate transmission service
12 and generation interconnection requests. Ultimately, the transmission-owning utilities
13 are required to build transmission upgrades to accommodate these regional
14 transmission service needs because the facilities in each SPP zone are now planned and
15 used to satisfy regional demands.

16 Q. HOW MUCH OF THE TRANSMISSION CAPITAL PUT INTO SERVICE IS
17 DIRECTLY ATTRIBUTABLE TO SPP REQUIREMENTS?

18 A. The projects identified as RTO in Table 1 above, totaling approximately \$170 million
19 of transmission investment, are directly attributable to SPP requirements. These
20 projects are discussed further below.

21 Q. PLEASE IDENTIFY SOME EXAMPLES OF THE MAJOR ASSET
22 IMPROVEMENT PROJECTS SWEPCO HAS PLACED IN SERVICE SINCE ITS
23 LAST RATE CASE.

1 A. See the following list of major asset improvement projects:
2 SWEPCO Line Rebuild Program (\$204,611,709) - This program consists of multiple
3 projects to be completed over a period of several years as part of an ongoing initiative
4 to improve the SWEPCO Transmission System reliability and dependability. It
5 consists of replacing deteriorated and poorly performing transmission lines and switch
6 facilities with identified conditions that include, but are not limited to: broken, split and
7 rotting poles, cross-arms and braces, bending of poles and cross-arms, missing
8 hardware, broken conductor strands, woodpecker damage, etc. The lines rebuilt under
9 this program include all or portions of the following:

- 10 • Hughes Springs to Jenkins Tap 69 kV (4.8 miles)
- 11 • Greenland to Van Buren Interconnect (VBI) North 69 kV (36.8 miles)
- 12 • North Huntington to Waldron West 69 kV (18.7 miles)
- 13 • Mt. Pleasant to New Boston 69 kV (42.1 miles)
- 14 • Clarendon to Northwest Memphis 69 kV (25.2 miles)
- 15 • Northwest Memphis to West Childress 69 kV (33.3 miles)
- 16 • Arsenal Hill to Longwood 138 kV (16.3 miles)
- 17 • Bann to Sugar Hill 69 kV (1.1 miles)
- 18 • Jenkins Tap to Lone Star Power Plant 69 kV (9.0 miles)

19 Inspections indicate the transmission lines and associated components continue
20 to degrade. As transmission lines are inspected, the number of structures that do not
21 meet the AEP guidelines due to rot, deterioration, and woodpecker damage, continue
22 to increase. The AEP guidelines are built upon the National Electrical Safety Code,
23 which specifies the necessary structural integrity and physical condition of a line to be
24 maintained. On several lines, these numbers have increased to the point where a
25 complete rebuild of the transmission line is warranted. A significant portion of these

1 lines are over 50 years old, with some facilities approaching 90 years old. As physical
2 deterioration continues on the lines, the performance of the circuits will continue to
3 degrade, and the number of momentary and permanent outages will increase. The
4 increased outage frequencies and duration of the deteriorated lines jeopardize service
5 reliability to customers and the reliability of surrounding areas. An increasing number
6 of outages will have a negative reliability impact on customers served from the affected
7 circuit, and may have a negative power quality impact on customers served from nearby
8 circuits as well. Routine inspection and an increasing number of emergency callouts
9 indicate that the lines and switches are frequently failing to meet AEP specifications.
10 When these conditions are observed, corrective action must be taken to remedy the
11 failed components by emergency replacement or repair. These unplanned activities
12 typically result in higher than normal expenditures.

13 SWEPCO Station Proactive Rehab Program (\$34,262,289) - This program includes
14 projects to proactively renew transmission assets based on performance, equipment
15 condition, and risk of failure. In light of Asset Health Center reports and field
16 inspections, AEP Transmission determined it necessary to proactively replace
17 equipment at multiple SWEPCO stations to prevent substantial failures that would
18 result in lengthy outages. Among the improvements, the program will replace thirty-
19 two aging transmission circuit breakers and seven transmission transformers at the
20 following stations: Bann, Diana, Dyess, Northwest Texarkana, Patterson, Whitney,
21 and Wilkes. The program also includes smaller station work such as relaying upgrades
22 and capacitor bank replacements at the following stations: Flint Creek, Hyland,
23 Shamrock, Siloam Springs, South Fayetteville, Southwest Shreveport, and Texarkana.

1 Transmission Asset Replace/Refurbish Program (\$24,355,315) - These projects were
2 part of an ongoing program to improve system reliability and dependability by
3 replacing failed equipment and aging station equipment that had reached the end of its
4 serviceable life or could no longer be properly maintained due to non-availability of
5 spare parts. This program also included projects to proactively replace deteriorating
6 transmission structures, foundations, poles, cross-arms, conductors, insulators and
7 associated hardware that were identified through inspections.

8 2013/2014 Asset Replacement (\$6,864,380) - The projects under this program were
9 part of an ongoing, multiyear effort to improve system reliability and dependability by
10 replacing failed equipment and strategically replacing selected, obsolete station
11 equipment that had reached the end of its serviceable life and could no longer be
12 properly maintained due to non-availability of parts. In addition, the program was used
13 to selectively replace obsolete and deteriorated transmission structures, foundations,
14 poles, cross-arms, conductors, insulators, and associated hardware.

15 Q. PLEASE IDENTIFY SOME EXAMPLES OF THE MAJOR CUSTOMER SERVICE
16 AND OTHER PROJECTS SWEPCO HAS PLACED IN SERVICE SINCE ITS LAST
17 RATE CASE.

18 A. The following are some of the major Customer Service projects SWEPCO has
19 completed since the last rate case to provide new or expanded transmission service to
20 customers.

21 Cass Tap to Roach TP2016105 (\$10,404,960) – North Texas Electric Cooperative
22 (NTEC) requested a new delivery point and upgrades to the existing Munz City Station.
23 The new delivery point was connected from the West Atlanta to IPC Domino 138 kV

1 line. AEP purchased land and constructed a new 138 kV box bay, Cass Tap Switching
2 Station, consisting of two breakers, one tap switch, and 138 kV metering units. Munz
3 City Station was reconfigured with the installation of two circuit breakers, a new meter
4 and 138 kV metering transformers.

5 Leaside Way TP2015127 (\$25,827,518) – This project involved the construction of a
6 new 138/69 kV station with a four breaker 138 kV ring bus, 138/69 kV auto
7 transformer, and a single 69 kV line exit. The new Leaside Way Station eliminates
8 two, three-terminal line arrangements that create relaying difficulties. The mitigation
9 to the difficulties is to delay tripping to allow proper operation, causing longer fault
10 clearing times. These long clearing times resulted in power quality issues for local
11 industrial customers, causing their equipment to trip off. Completion of this project
12 allowed the relay schemes to operate normally providing for faster clearing times and
13 no disruption to the customers.

14 Q. PLEASE IDENTIFY SOME EXAMPLES OF THE MAJOR RELIABILITY
15 PROJECTS SWEPCO HAS PLACED IN SERVICE SINCE ITS LAST RATE CASE.

16 A. The following are some of the major Reliability projects SWEPCO has completed since
17 the last rate case to address necessary growth and upgrade of the existing transmission
18 system.

19 Transmission Capital Blanket (\$35,757,343) - This program covered projects such as
20 transmission line work, station asset replacements due to failures, public relocation
21 changes made mandatory by the alteration, construction, reconstruction, or relocation

1 of all public projects carried out by a governmental body, and storm recovery costs for
2 minor storm events. These were all projects that individually cost less than \$500,000.
3 Welsh HVDC Tie (\$17,794,561) - When the Welsh HVDC was originally constructed,
4 both the ERCOT and SPP transmission systems in the Welsh area were tightly
5 regulated by large base load generating plants. However, due to changes in the
6 generation supply curve and the corresponding economic dispatch of the system, this
7 is no longer the case. This lack of tight voltage regulation led to high voltage conditions
8 around the Welsh HVDC and the reduction in local on-line generation also contributed
9 to issues with 5th harmonics, leading to trips of the HVDC. In order to alleviate these
10 conditions, SWEPCO installed reactive compensation and a 5th harmonic filter at the
11 Welsh Station. The Welsh HVDC control system computers and software were also
12 outdated, resulting in maintenance and functionality challenges that reduced the
13 reliability of the HVDC under the existing and future conditions. Those systems were
14 also replaced.

15 Telecom Fiber Buildout Program (\$15,886,007) - This project is part of an on-going
16 program to provide AEP Transmission with a strong fiber based telecommunications
17 network with the following key benefits:

- 18 • Fiber based protective relaying schemes with diverse communication paths to
19 stations 138kV and higher;
- 20 • Fiber based Remote Terminal Unit communication paths (AEP owned and
21 controlled; no leased circuits and associated reliability issues and monthly
22 O&M costs);
- 23 • Bandwidth required to backhaul Phasor Measurement Unit data;
- 24 • Bandwidth required to backhaul Asset Health data (breakers, transformers,
25 switches, etc.);

- 1 • Bandwidth required to backhaul video from multiple security cameras at a
2 station;
- 3 • North American Electric Reliability Corporation-Critical Infrastructure
4 Protection (NERC CIP) security information (card readers, keypads, sensors,
5 etc.) over AEP controlled telecommunications systems;
- 6 • Move AEP microwave radio based backbone telecommunication systems from
7 primary to secondary transport systems;
- 8 • Telecommunications transport equipment vendors have been evolving away
9 from microwave to fiber based platforms putting AEP in a position to take
10 advantage of this evolution;
- 11 • Microwave based transport systems offer a very small fraction of the bandwidth
12 provided by a fiber optic based system;
- 13 • Microwave based transport systems are subject to reoccurring outages due to
14 interference and weather conditions that do not affect fiber based systems;
- 15 • Fiber based systems offer additional capacity to meet AEP's future strategic
16 telecommunications requirements; and
- 17 • Efficient and reliable operation of the Transmission (and Distribution) systems
18 of the future will require the bandwidth and resiliency that only a fiber optic
19 based telecommunications system can provide.

20 SWEPSCO Region Major Eq/Spares Program (\$7,763,206) - The Transmission sparing
21 strategy is based on a probabilistic model that predicts failures based on AEP specific
22 transformer data, historical failure rates and material lead times across every operating
23 company. This strategy creates a required target for spares for each operating company
24 based on current inventory, kV class, and failure rates, among other things. This three-
25 year program (2017-2019) consists of specific asset replacement projects, replacement
26 of failed equipment, and the purchase of major spare and mobile equipment. The
27 program is part of an ongoing effort to improve system reliability and dependability by
28 replacing equipment that has reached the end of its serviceable life, and by purchasing
29 long-lead-time equipment that will become system spares. The equipment purchased
30 will mainly consist of capital spare transformers, spare reactors, spare circuit breakers,

1 mobile transformer stations, and spare transmission line towers. A three-year program
2 allows SWEPCO to secure equipment contracts to leverage our purchases and obtain
3 the best prices for the needed equipment. Having these spares on hand will improve
4 reliability to customers by enabling a quicker restoration in the event of a service
5 interruption, either through the use of a mobile transformer or more timely replacement
6 of failed equipment. For long-lead-time equipment, this can be particularly important
7 as a failure can leave the transmission system in a vulnerable state until new equipment
8 is installed.

9 T/SW/Telecom Upgrades (\$6,495,906) - This project was a multi-year effort to replace
10 obsolete equipment that is no longer supported by telecommunication companies by
11 replacing analog leased lines, frame relay circuits (obsolete digital leased line), and
12 tone telemetry installations (obsolete 2-point system alarms). Telecom providers
13 phased out these older technologies, which they will no longer support, and which AEP
14 Transmission will no longer be able to support due to lack of expertise and
15 unavailability of parts. These upgrades also required the replacement of related station
16 equipment such as older model RTUs that will not support newer technology, and in
17 the case of obsolete tone telemetry, RTUs had to be added to support the newer
18 Telecom technology.

19 Q. PLEASE IDENTIFY SOME EXAMPLES OF THE MAJOR RTO PROJECTS
20 SWEPCO HAS PLACED IN SERVICE SINCE ITS LAST RATE CASE.

21 A. The following major RTO projects are some of the projects SWEPCO has completed
22 since the last rate case to comply with SPP requirements and ensure the reliability of
23 the transmission system.

1 Valliant to Northwest Texarkana 345 kV Line (\$92,673,383) - This project was
2 mandated by the SPP RTO as a part of their “High Priority Projects” Study and
3 subsequent recommendations. This project provides reliability and economic benefits
4 to the region by increasing west – east transfer capability and enabling more efficient
5 operation of the region’s generation supply.

6 The Longview Heights to Marshall 69 kV Line (\$27,089,097) - The SPP identified the
7 Longview Heights - Marshall 69 kV line overloaded under contingency conditions.
8 The project received an NTC (Notification to Construct) and was mandatory for
9 regional reliability network upgrades. To remediate the overload condition, this project
10 rebuilt 17.8 miles of the 69 kV line from Longview Heights – Marshall.

11 The Brownlee to North Market 69 kV Line (\$16,538,199) - The SPP identified and
12 mandated a reliability project to rebuild approximately 4.7 miles of 69 kV transmission
13 line from Brownlee to North Market. The existing line overloads during contingency
14 outage conditions. In addition to the line rebuild, upgrades were completed at the
15 Brownlee and North Market Stations.

16 Evenside to Northwest Henderson 69 kV Line (\$11,171,456) - This is a SPP mandated
17 reliability project needed to address a single contingency overload for the outage of the
18 Northwest (NW) Henderson to Poynter 69 kV line. The project involved the rebuild
19 of the Evenside to Northwest Henderson 69 kV line.

20 Chamber Springs to Farmington 161 kV Line (\$10,668,801) - This is an SPP mandated
21 reliability project needed to address a single contingency thermal overload. The project
22 involves a rebuild of the 11.1 miles of 161 kV line from Chamber Springs to

1 Farmington. In addition to the line rebuild, terminal equipment was upgraded at the
2 Chamber Springs and South Fayetteville stations.

3 Broadmoor - Fort Humbug 69 kV (\$6,516,184) - The Southwest Power Pool identified
4 and mandated a reliability project to rebuild approximately 1.7 miles of 69 kV
5 transmission line from Broadmoor to Fort Humbug. The existing line overloads during
6 contingency outage conditions. In addition to the line rebuild, upgrades were completed
7 at the Broadmoor and Fort Humbug stations.

8 Ellerbe Road - Lucas 69 kV (\$5,840,127) - This project was mandated by SPP to
9 address the overload of the Ellerbe Road - Lucas 69 kV line for the outage of the South
10 Shreveport - Wallace Lake 138 kV line. To alleviate the overload, AEP rebuilt
11 approximately 3 miles of 69 kV line from Ellerbe Road Station to Lucas
12 Station. Ellerbe Road Station scope included the replacement of the existing 69 kV
13 breaker, installation of a three-phase set of capacitor voltage transformers (CCVT's),
14 and replacement of both arresters and line/breaker relays. Lucas Station scope included
15 the addition of arresters to the 69 kV circuit to Ellerbe Road Station and conduit for
16 fiber from the dead-end structure to the pre-cast cable trench.

17 Q. WHAT PROCESSES ARE IN PLACE TO KEEP THE COST OF TRANSMISSION
18 CAPITAL PROJECTS REASONABLE?

19 A. All projects are built in accordance with best utility engineering practices and the
20 planning/operating standards and guidelines set forth by NERC, SPP, Institute of
21 Electrical and Electronics Engineers, Inc., National Electrical Safety Code (NESC),
22 Occupational Safety and Health Administration (OSHA) and American National
23 Standards Institute (ANSI). A competitive bidding process is used in selecting

1 qualified contractors to perform transmission construction and in procurement of the
2 necessary equipment and materials. SWEPCO considers safety, customer satisfaction,
3 reliability, capacity, availability, and adherence to planning and engineering standards
4 while maintaining cost controls in the planning and management of all transmission
5 capital projects.

6 Q. HOW ARE PROJECT ESTIMATES COMPLETED?

7 A. The Company utilizes a robust project estimate modeling process to prepare project
8 estimates, which are implemented by a project estimating department. This modeling
9 process has evolved over the years to incorporate best utility practices, and the
10 modeling process will continue to evolve as process improvement opportunities are
11 identified. The modeling process uses many inputs that include historical results by
12 project type, current labor and unit price cost contracts that are competitively bid every
13 three years, blanket contract costs for materials for the entire AEP system that take
14 advantage of volume pricing, construction standards to reduce design costs and make
15 these costs more predictable, stores oversight to marshal or stage materials by project
16 and arrange for timely deliveries for materials to the job site to reduce and predict
17 delivery material handling costs, and the inclusion and review of all overhead costs to
18 ensure the final project estimates are reasonable and consistent.

19 Q. HOW DOES SWEPCO PROVIDE OVERSIGHT TO ENSURE THE PROJECT
20 ESTIMATES ARE REASONABLE?

21 A. The Company provides both cost and project management oversight. Initially, the
22 project estimates are approved by multiple persons with the authority to review and
23 approve projects based on their functional areas and expertise. If the actual cost of a

1 project is projected to be more than twenty percent over the original estimate, a revision
2 to the original capital improvement is required before the project is completed.
3 Additionally, projects are assigned a "project manager" to oversee the physical
4 construction of the projects from start to finish. During the construction process,
5 financial reports are reviewed monthly to monitor the variance between the project
6 estimated and actual costs to ensure projects are completed within budget and on time.
7 Similarly, the project manager monitors the progress of the job to ensure the project is
8 completed as required by the project drawings, engineering specifications, and
9 applicable standards.

10 Q. DOES SWEPCO PERFORM A REVIEW TO VALIDATE THE PROJECT
11 ESTIMATING PROCESS?

12 A. Yes. Estimate reviews are conducted during and after the construction of select
13 projects. This is a function of the project cost monitoring process. The estimating
14 process is reviewed by an estimating department and process improvement teams to
15 look for opportunities to cut costs and more accurately estimate project construction
16 costs. As previously indicated, the actual project costs of completed projects are used
17 as an input to the estimating model for future project estimates. Additionally, actual
18 costs for similar projects are compared to identify any underlying issues that may be
19 identified as opportunities to improve the estimating process. The project estimating
20 process is a continuous process improvement initiative to keep project costs
21 competitive and reasonable. Besides looking at the estimating process, the Company
22 also looks at opportunities to reduce costs by improving design standards such as using
23 modular designs, reducing material costs by working with equipment manufacturers

1 and suppliers, and working with our labor contractors to work more effectively.
2 Constructing a transmission project is a complex process, but the Company continues
3 to manage the entire process and ensure a successful outcome in building a reliable
4 transmission infrastructure at a competitive and reasonable cost.

5 Q. DO THE CAPITAL ADDITIONS INCLUDE ANY AFFILIATE CHARGES?

6 A. Yes. During the period from July 1, 2016 through March 31, 2020, \$102.2 million of
7 the total transmission capital invested was comprised of affiliate costs. The cost for
8 the services provided by AEPSC to SWEPCO, which comprise the affiliate capital
9 costs, include the planning, engineering, design, and construction management services
10 for all SWEPCO transmission stations, system protection, and transmission line
11 facilities.

12 Q. PLEASE SUMMARIZE THE EVIDENCE THAT DEMONSTRATES THE
13 REASONABLENESS OF THE AFFILIATE CHARGES INCLUDED IN THE
14 CAPITAL ADDITIONS.

15 A. The capital project budgeting and approval processes I described earlier ensure that any
16 affiliate charges included in the capital additions are appropriate, reasonable, and
17 necessary.

18

1 VII. CONCLUSION

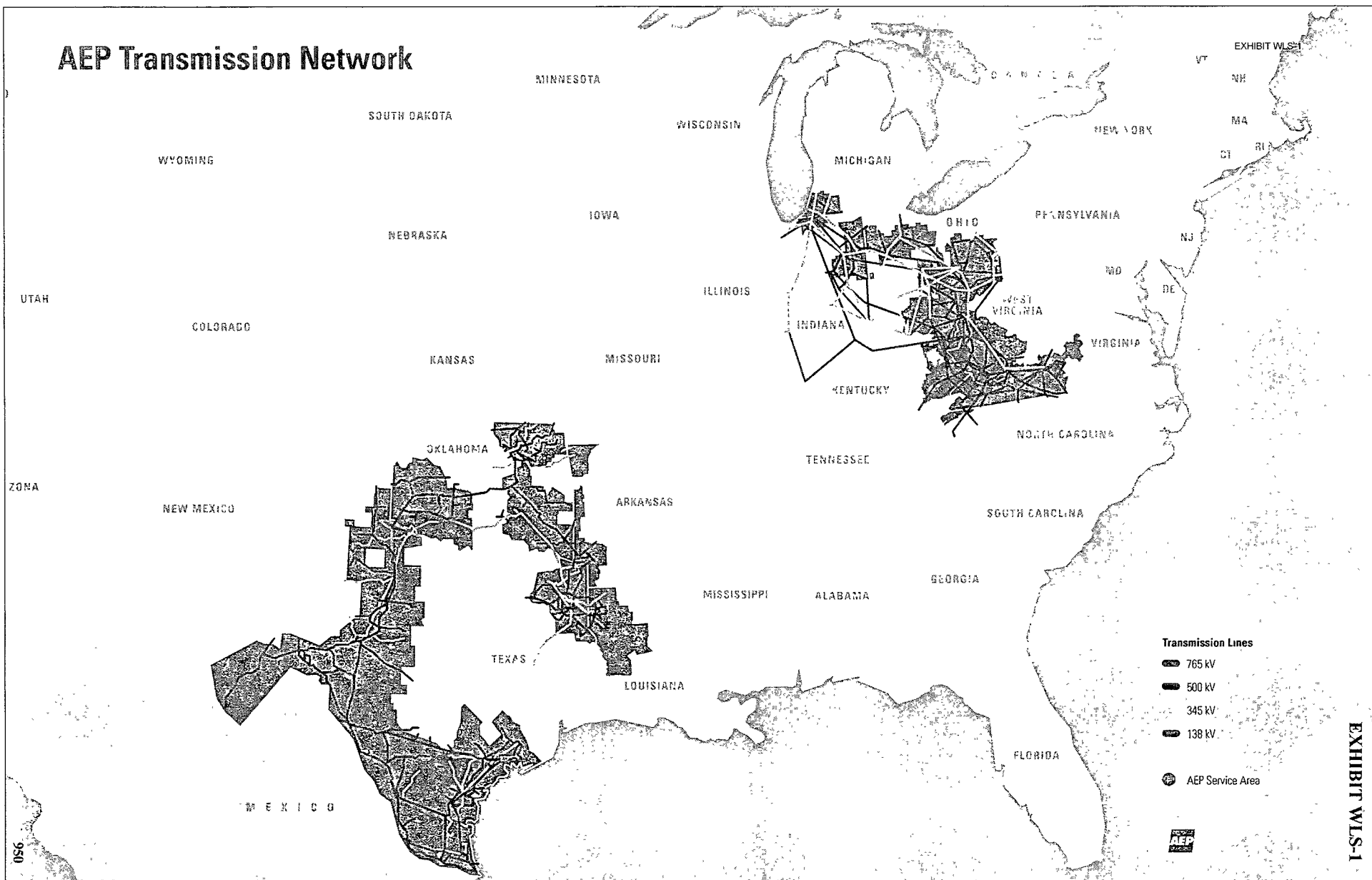
2 Q. DO YOU HAVE ANY COMMENTS IN SUMMARY?

3 A. Yes. The capital investments made by SWEPCO since the last base rate cases are
4 necessary and reasonable to ensure the continued provision of reliable service to
5 SWEPCO's end-use customers.

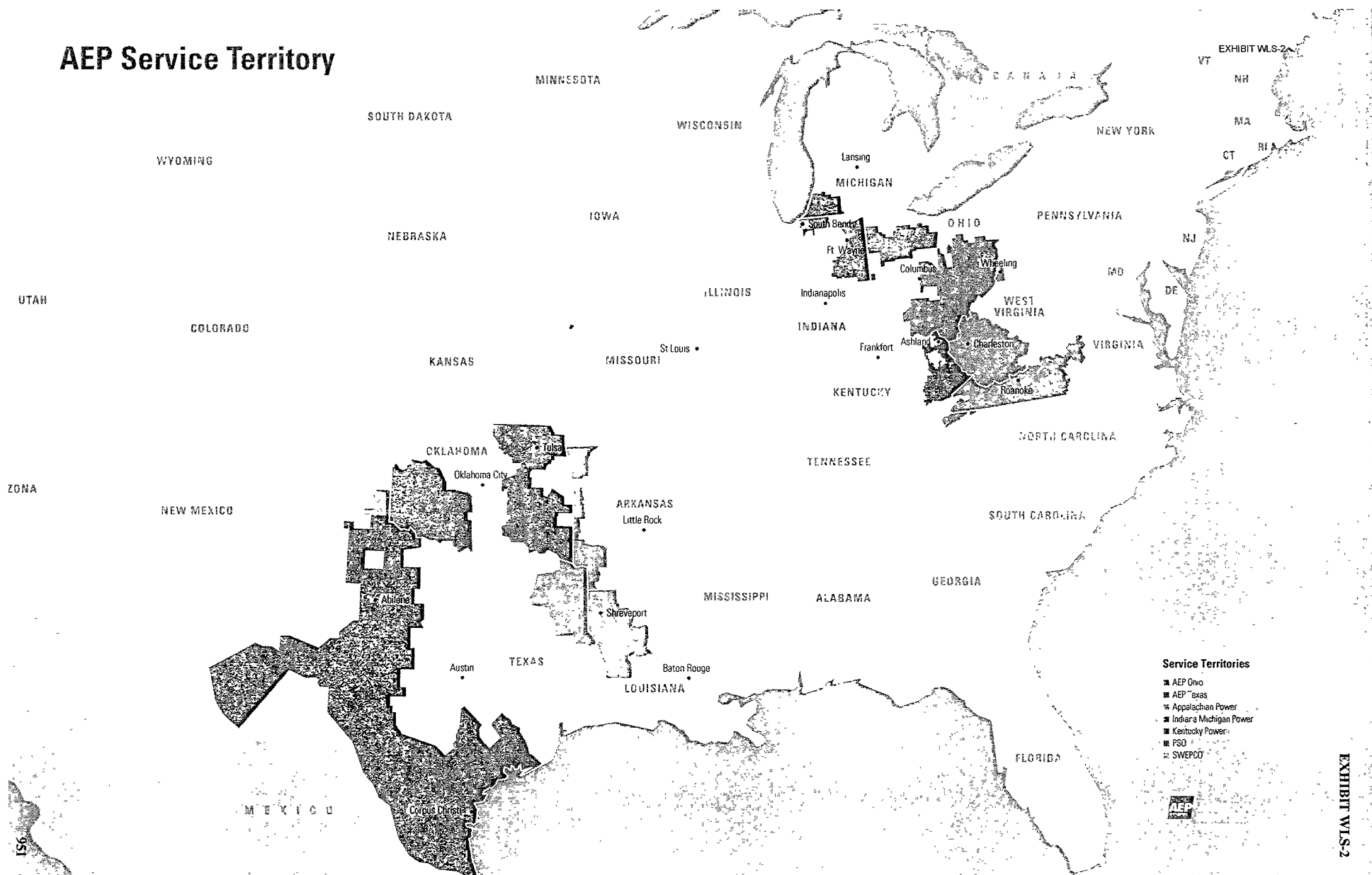
6 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

7 A. Yes, it does.

AEP Transmission Network



AEP Service Territory



Existing Transmission Lines

138 kV	69 kV	500 kV
345 kV	115 kV	161 kV

SWEPCO Service Territory



EXECUTIVE SUMMARY OF PAUL PRATT JR.

Paul Pratt Jr., the Director of Customer Services and Marketing for Southwestern Electric Power Company (SWEPCO or the Company) supports the recovery of \$25,774,594 in total adjusted test year customer services costs included in SWEPCO's cost of service. Mr. Pratt has overall responsibility for customer service and marketing at SWEPCO. Among the activities Mr. Pratt is responsible for are the following: (a) credit and collection activities; (b) customer account management; (c) complaint management; (d) marketing; and (e) billing.

Mr. Pratt describes SWEPCO's Customer Services and Marketing (CS&M) organization and provides an overview of SWEPCO's Meter Revenue Operations (MRO) organization, which works in conjunction with CS&M. He further describes the Chief Customer Officer (CCO) organization of American Electric Power Service Corporation (AEPSC), the service company affiliate that provides support to SWEPCO's customer services activities.

Mr. Pratt also discusses SWEPCO's quality of customer service, including surveys that demonstrate a high level of customer satisfaction with SWEPCO compared to national averages. He further notes that SWEPCO's customers have filed no complaints with the Public Utility Commission of Texas (PUC or Commission) regarding the Company's service during the test year.

Mr. Pratt also demonstrates that the AEPSC CCO organization provides essential, complementary services to his organization through the activities of six groups: Customer Strategy and Insights; Customer Solutions and Policy; Customer Services Support; Economic and Business Development; Customer Program Management; and Customer Operations.

These groups' activities include: operation of call centers, billing operations, credit and collection support, responding to bankruptcy filings, providing bankruptcy-associated account maintenance, providing customer support for all non-mail customer payment methods, management of large chain accounts, support of SWEPCO's website as it relates to end-use customers, raising awareness on cost-effective customer contact channels, management of third-party asset utilization, load research, meter services support, and assistance with customer programs.

Mr. Pratt justifies the recovery by SWEPCO of total Customer Services costs, which includes \$11,392,833 in affiliate expenses billed to SWEPCO by the AEPSC CCO organization. Mr. Pratt explains that the high customer satisfaction achieved by SWEPCO supports the fact that AEPSC CCO is providing effective support to SWEPCO's customer service operations. In addition, Mr. Pratt shows how the organization has managed its costs and provided efficient services to SWEPCO at a stable level of ongoing costs.

Finally, Mr. Pratt discusses how cost trends, benchmark studies, performance to budget, and staffing trends collectively demonstrate the reasonableness and necessity of SWEPCO's customer services costs, including the service company component of such costs.

PUBLIC UTILITY COMMISSION OF TEXAS

APPLICATION OF
SOUTHWESTERN ELECTRIC POWER COMPANY
FOR AUTHORITY TO CHANGE RATES

DIRECT TESTIMONY OF
PAUL PRATT JR.
FOR
SOUTHWESTERN ELECTRIC POWER COMPANY

OCTOBER 2020

<u>SECTION</u>	<u>TESTIMONY INDEX</u>	<u>PAGE</u>
I.	INTRODUCTION.....	1
II.	CUSTOMER SERVICE OVERVIEW	3
	A. Description of the SWEPCO CS&M Organization	4
	1. Customer Services and Marketing	5
	2. Energy Efficiency & Consumer Programs.....	6
	B. Description of the AEPSC CCO Organization	7
	1. AEPSC Customer Strategy and Insights	8
	2. AEPSC Customer Solutions and Policy	8
	3. AEPSC Customer Services Support	8
	4. AEPSC Economic and Business Development	10
	5. AEPSC Customer Program Management.....	11
	6. AEPSC Customer Operations.....	11
	C. SWEPCO Interface with AEPSC CCO	14
III.	METER SERVICES OVERVIEW	15
	A. Description of the SWEPCO MRO Organization	15
	1. Field Revenue Operations.....	16
	2. Meter Services	17
	3. Revenue Protection Coordinators	17
	4. Field Communications.....	17
IV.	QUALITY OF SERVICE	18
	A. Residential and Commercial Customer Surveys.....	19
	B. Managed Account Customer Survey	21
	C. Customer Operations Center Surveys	22
	D. Meter Reading.....	23
V.	CUSTOMER SERVICES COSTS	23
VI.	AFFILIATE COSTS	28

EXHIBITS

EXHIBIT PP-1	SWEPCO Customer Service & Marketing (CS&M) Organizational Chart
EXHIBIT PP-2	SWEPCO Meter Revenue Operations (MRO) Organizational Chart
EXHIBIT PP-3	AEPSC Chief Customer Officer (CCO) Organizational Chart
EXHIBIT PP-4	Texas Peer Group – Customer Service Costs per Customer
EXHIBIT PP-5	Regional South Central Peer Group – Customer Service Costs per Customer
EXHIBIT PP-6	National Peer Group – Customer Service Costs per Customer

1 I. INTRODUCTION

2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3 A. My name is Paul Pratt Jr. My business address is 428 Travis Street, Shreveport,
4 Louisiana, 71101.

5 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

6 A. I am employed by Southwestern Electric Power Company (SWEPCO or the
7 Company) as Director of Customer Services and Marketing. SWEPCO is an operating
8 company of American Electric Power Company, Inc. (AEP). SWEPCO is
9 headquartered in Shreveport, Louisiana, and provides retail electric service to
10 customers in East Texas, the Panhandle in North Texas, Louisiana, and Arkansas.

11 Q. WHAT IS YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL
12 EXPERIENCE?

13 A. I received a Bachelor of Science degree from Louisiana State University-Shreveport
14 in 1997. In addition, I received a Master of Business Administration from Louisiana
15 Tech University in 2002. I began my employment at SWEPCO in October 2006 as an
16 Energy Efficiency and Consumer Programs Coordinator. In that position, I was
17 responsible for implementing and administering energy efficiency programs in
18 compliance with Public Utility Commission of Texas (PUC or Commission) rules for
19 such programs. In 2013, I was named Consumer Programs Manager with
20 responsibility for SWEPCO's Energy Efficiency and Consumer Programs department.
21 In 2019, I moved to my current position as Director of Customer Services and
22 Marketing for SWEPCO.

1 Q. WHAT ARE YOUR RESPONSIBILITIES AS DIRECTOR OF CUSTOMER
2 SERVICES AND MARKETING?

3 A. As Director of Customer Services and Marketing, I am responsible for:

- 4 • Ensuring proactive and customized service is provided to SWEPCO's
5 residential, commercial, and industrial customers;
- 6 • Formulating, implementing, and administering policies and programs
7 pertaining to all customers;
- 8 • Managing and administering credit and collection activities;
- 9 • Resolving customer inquiries and complaints concerning issues such as
10 power quality, quality of service, and billing, and;
- 11 • Deployment of demand response and energy efficiency (EE) programs for
12 SWEPCO customers.

13 My customer services and marketing responsibilities also include account
14 management. Large industrial and large commercial customer accounts are
15 managed on an individual basis through "account managers" who are the
16 customers' single point of contact. All other segments of customers are managed by
17 "customer service representatives" geographically distributed across the SWEPCO
18 service territory.

19 Q. DO YOU SPONSOR ANY RATE FILING PACKAGE SCHEDULES?

20 A. Yes. I sponsor the following schedule:

- 21 • H-13.1c Quality of Service Complaints

22 I co-sponsor the following schedule:

- 23 • H-13.1e Quality of Service Improvements (with SWEPCO witnesses Drew
24 Seidel and Daniel Boezio)

1 Q. HAVE YOU PREVIOUSLY FILED TESTIMONY BEFORE THE COMMISSION?

2 A. Yes. I have previously filed testimony before the Commission on behalf of SWEPCO
3 in Docket Nos. 38210, 39359, 40357, 41439, 42447, 44612, 45824, 47116, 48334,
4 and 49499.

5 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

6 A. I will provide an overview of SWEPCO's Customer Services and Marketing
7 (CS&M) and Meter Revenue Operations (MRO) organizations, as well as the
8 American Electric Power Service Corporation (AEPSC) Chief Customer Officer
9 (CCO) organization, which provides support to SWEPCO's customer services
10 activities. I will also summarize the quality of customer service provided to our
11 customers, including customer service survey results, and the lack of formal
12 complaints against SWEPCO filed with the Commission. I support SWEPCO and
13 AEPSC customer service organization costs, and demonstrate the reasonableness,
14 necessity, and appropriateness of the customer services charges to SWEPCO
15 provided by AEPSC.

16

17 II. CUSTOMER SERVICE OVERVIEW

18 Q. HOW DOES SWEPCO PROVIDE THE CUSTOMER SERVICES THAT RETAIL
19 CUSTOMERS REQUIRE IN CONNECTION WITH THE PROVISION OF
20 ELECTRIC SERVICE TO THEM BY SWEPCO?

21 A. SWEPCO's retail customers receive customer services they require in connection
22 with the provision of their electric service from the CS&M organization within

1 SWEPCO. In addition, the AEPSC CCO organization supports and provides customer
2 services to SWEPCO's retail customers. These groups are complementary and do not
3 duplicate services, as I will explain below.

4 Q. PLEASE GENERALLY DESCRIBE THE CUSTOMER SERVICES GROUPS AT
5 SWEPCO AND AEPSC.

6 A. Customer Services employees are employed by either a specific AEP operating
7 company (e.g., a SWEPCO meter servicer in Longview) or by AEPSC (e.g., a
8 national account representative supporting national accounts). In general, operating
9 company employees are focused on the day-to-day business of serving SWEPCO
10 customers, while the AEPSC employees provide services to improve SWEPCO's
11 ability to serve its customers. Because of the nature of these functions, the
12 Company can realize efficiencies by sharing AEPSC resources with sister utility
13 companies.

14 A. Description of the SWEPCO CS&M Organization

15 Q. WHAT, IN GENERAL, IS THE SCOPE AND NATURE OF SWEPCO'S CS&M
16 ORGANIZATION?

17 A. SWEPCO's CS&M organization is responsible for SWEPCO's customers - from
18 designing, implementing, and administering customer policies and programs, to
19 managing credit and collection activities, and resolving customer inquiries and
20 complaints. The CS&M organization also administers the residential critical care
21 customer designations, manages customer accounts and billing, conducts home
22 energy audits, and coordinates all renewable energy technology and distributed

1 generation requests. The specific services provided by this organization are detailed in
2 the following sections.

3 A high-level organizational chart of the SWEPCO CS&M organization is
4 shown in EXHIBIT PP-1.

5 Q. PLEASE EXPLAIN THE STRUCTURE OF THE SWEPCO CS&M
6 ORGANIZATION.

7 A. The SWEPCO CS&M organization is comprised of 46 employees who provide
8 services related to the provision of electricity to retail customers. The organization is
9 made up of two departments: 1) Customer Services and Marketing, with 35
10 employees; and 2) Energy Efficiency & Consumer Programs, with eleven employees.
11 I will describe the structure and functions of each of those two departments below.

12 1. Customer Services and Marketing

13 Q. PLEASE DESCRIBE THE ACTIVITIES OF THE SWEPCO CUSTOMER
14 SERVICES AND MARKETING DEPARTMENT.

15 A. The Customer Services and Marketing department resolves end-use customer
16 problems regarding service and billing issues. These employees also manage
17 relationships with large end-use customers such as hospitals, manufacturers, refineries
18 and chain accounts, as well as electric cooperatives, which encompass all activities
19 that are necessary to provide electric service to customers. SWEPCO Customer
20 Services employees also play an important role in providing logistics support during
21 storm restoration. SWEPCO Customer Services field-based personnel are assigned by
22 area to investigate and resolve end-use customer problems such as meter reading

1 access, rate verification, damage claims, power quality problems, and other customer
2 issues. SWEPCO Customer Services is also responsible for managing customer
3 complaints and conducting root cause analyses to find and correct root causes of
4 customer issues. Additionally, SWEPCO Customer Services facilitates local
5 operational improvement meetings with other SWEPCO workgroups to improve
6 service and productivity. Additionally, this department is responsible for working
7 with customers to provide alternate energy solutions, such as renewables (i.e., wind,
8 solar, etc.).

9 2. Energy Efficiency & Consumer Programs

10 Q. PLEASE DESCRIBE THE ACTIVITIES OF THE SWEPCO ENERGY
11 EFFICIENCY & CONSUMER PROGRAMS DEPARTMENT.

12 A. The Energy Efficiency & Consumer Programs department is responsible for
13 administering standard offer programs and market transformation programs in each
14 jurisdiction to achieve the state-mandated goals for energy efficiency. Program
15 administration includes program design, outreach activities, application review,
16 contract execution, on-site inspections of work submitted, invoice review and
17 processing, website maintenance, monitoring of the programs, cost-effectiveness
18 review, energy efficiency expense accounting, and completion of annual energy
19 efficiency filings. The Energy Efficiency & Consumer Programs Department ensures
20 compliance with regulatory rules and statutory requirements.

21 Q. ARE YOU SEEKING RECOVERY OF SWEPCO ENERGY EFFICIENCY
22 PROGRAM COSTS IN THIS PROCEEDING?

1 A. No. SWEPCO witness Michael Baird has made a pro forma adjustment to exclude all
2 energy efficiency¹ program costs, including the Texas portion that is now recovered
3 through the Energy Efficiency Cost Recovery Factor (EECRF).

4 B. Description of the AEPSC CCO Organization

5 Q. DOES AEPSC ALSO PROVIDE CUSTOMER SERVICE SUPPORT TO
6 SWEPCO?

7 A. Yes. As I mentioned previously, the AEPSC CCO organization provides customer
8 service support to SWEPCO and the other AEP operating companies. AEPSC
9 provides services that are complementary to the services provided by the SWEPCO
10 CS&M organization. The AEPSC CCO organization primarily provides the services
11 that are common among all operating companies throughout the AEP system, thus
12 allowing the operating companies to benefit through economies of scale. In general,
13 SWEPCO is responsible for providing those services that are unique to SWEPCO.

14 Q. PLEASE SUMMARIZE THE SERVICES PROVIDED BY THE AEPSC CCO
15 ORGANIZATION AND WHY THESE SERVICES ARE NECESSARY.

16 A. The AEPSC CCO organization provides specialized energy delivery support
17 services and expertise across the AEP system. The AEPSC CCO is made up of six
18 groups: Customer Strategy and Insights; Customer Solutions & Policy; Customer
19 Services Support; Economic and Business Development; Customer Initiatives

¹ On May 1, 2020, SWEPCO filed an Application with the Commission, seeking to adjust its EECRF in PUC Docket No. 50805.

1 Program Management; and Customer Operations. Within each group are centralized
2 subgroups that provide dedicated resources to AEP's operating companies in 11
3 states. A high level organizational chart of the AEPSC CCO organization is shown
4 in EXHIBIT PP-3.

5 1. AEPSC Customer Strategy and Insights

6 Q. PLEASE DESCRIBE THE SERVICES PROVIDED TO SWEPCO BY THE
7 AEPSC CUSTOMER STRATEGY AND INSIGHTS GROUP.

8 A. The AEPSC Customer Strategy and Insights group develops and supports customer
9 digital channels and key customer insights and metrics. The AEPSC Customer
10 Strategy and Insights group also supports budgeting for the CCO organization.

11 2. AEPSC Customer Solutions and Policy

12 Q. PLEASE DESCRIBE THE SERVICES PROVIDED TO SWEPCO BY THE
13 AEPSC CUSTOMER SOLUTIONS AND POLICY GROUP.

14 A. The AEPSC Customer Solutions and Policy group focuses on the convergence of
15 customer preferences, new technologies, reducing costs, and minimizing risks. This
16 subgroup of employees is dedicated to developing and implementing a variety of
17 innovative customer solutions and marketing programs.

18 3. AEPSC Customer Services Support

19 Q. PLEASE DESCRIBE THE SERVICES PROVIDED TO SWEPCO BY THE
20 AEPSC CUSTOMER SERVICES SUPPORT GROUP.

21 A. The AEPSC Customer Services Support group employees have responsibilities that
22 include support activities for customer-facing functions and systems. There are six

1 subgroups related to Customer Services Support that include Utility Business
2 Development, Special Billing and Translation, Load Research, EE & Consumer
3 Programs, Customer Choice, and Customer Information Systems Implementation &
4 Support. The Utility Business Development group focuses on asset utilization by
5 managing joint-use contracts with third parties who attach their own lines, cables,
6 or other equipment to SWEPCO's distribution facilities.

7 Special Billing and Translation employees prepare billing information for
8 large customers and process billing data exceptions for those large customers who
9 are metered and billed using interval data recorder (IDR) meters. They administer
10 the system that translates and processes billing information from IDR meters and
11 collect and provide interval load data for data analysis and load research. They also
12 provide central support to operating company MRO personnel, large industrial
13 customers, automated metering systems, and back office process development.

14 Load Research employees perform analyses primarily in support of
15 consumer programs, as well as providing support on a variety of issues including,
16 but not limited to, assistance with EE and demand response programs, and program
17 plan development.

18 The EE & Consumer Programs employees ensure the availability of
19 consumer programs in all AEP jurisdictions dedicated to EE, or any other related
20 utility service offerings.

21 The Customer Information Systems Implementation & Support group
22 supports billing and customer information systems used by all operating companies.

1 The Customer Choice group manages the exchange of account and billing
2 information for customers within the deregulated service territories that participate
3 in choice programs with energy marketers. These employees also provide technical
4 and training support to SWEPCO-based customer services employees, and are
5 responsible for remediation and documentation for customer services processes and
6 functions.

7 4. AEPSC Economic and Business Development

8 Q. PLEASE DESCRIBE THE SERVICES PROVIDED TO SWEPCO BY THE
9 ECONOMIC AND BUSINESS DEVELOPMENT GROUP.

10 A. The AEPSC Economic and Business Development group provides a variety of
11 professional resources and research to evaluate regional and local market conditions
12 and to develop new programs and initiatives to spur growth and investment
13 throughout AEP's service territories, which brings jobs to our communities.

14 The Economic and Business Development group also manages AEPSC
15 National Accounts. This group of employees has responsibilities that include
16 providing national account management services to large chain accounts that have
17 locations in more than one AEP operating company service area. These employees
18 provide large chain account customers with a single point of contact to more
19 effectively and efficiently help resolve service issues involving new or existing
20 locations. Examples of such customers in SWEPCO's Texas service area include
21 International Paper Company, Pilgrim's Pride Corporation, Exxon Mobil
22 Corporation, Tyson Foods, Inc., and Brookshire Grocery Company.

1 5. AEPSC Customer Program Management

2 Q. PLEASE DESCRIBE THE SERVICES PROVIDED TO SWEPSCO BY THE
3 AEPSC CUSTOMER PROGRAM MANAGEMENT GROUP.

4 A. Working with Executive Management and the Customer Experience Board, the
5 purpose of the AEPSC Customer Experience Management group is to deliver
6 modern solutions that advance AEP's strategic objectives. The AEPSC Customer
7 Program Management employees are responsible for providing program deployment
8 oversight for customer programs and technology benefiting AEP's customers.
9 Accomplishment of AEPSC Customer Program Management initiatives drives
10 improvement in customer satisfaction metrics.

11 6. AEPSC Customer Operations

12 Q. PLEASE DESCRIBE THE SERVICES PROVIDED TO SWEPSCO BY THE
13 AEPSC CUSTOMER OPERATIONS GROUP.

14 A. The AEPSC Customer Operations group is comprised of AEPSC employees,
15 supplemented with contract employees, who provide services to the AEP Operating
16 Companies through three functional work subgroups: Customer Operations Centers
17 (COCs), Credit Policy and Payment Administration, and Customer Interface and
18 Channel Management.

19 Q. PLEASE DESCRIBE THE SERVICES PROVIDED TO SWEPSCO BY THE
20 AEPSC CUSTOMER OPERATIONS CENTER SUBGROUP.

21 A. AEPSC has five virtually integrated COCs that are strategically located throughout
22 AEP's service territories. AEPSC employees are supplemented with contract

1 employees in the five COCs, including support functions. AEP's COC located in
2 Shreveport, Louisiana provides primary call handling responsibility for customers
3 located in SWEPCO's service area.

4 The COC employees process inbound customer calls and internet inquiries
5 from www.SWEPCO.com and take the appropriate action to respond to all customer
6 service inquiries including credit-related functions, outage reporting and customer
7 hazardous conditions. COC employees also process hazardous condition calls
8 originating from 9-1-1 and other emergency service providers. In addition to AEP's
9 internal COC employees, additional services are provided by NCO Financial Systems
10 (NCO), a third-party contractor, to supplement call processing for credit-related
11 inquiries. The NCO representatives are also available to assist with outage call
12 processing as needed.

13 In addition, the Customer Operations Center subgroup contains the AEPSC
14 Billing and Account Operations group, which is comprised of employees whose
15 responsibilities include the maintenance of customer billing programs. They are
16 responsible for responding to customer correspondence, answering customer
17 complaints, and maintaining records. They process the release of all customer
18 information, run usage history requests, maintain usage history request records in the
19 database, maintain non-metered service billing records, and resolve billing disputes
20 and billing complaints, including making appropriate billing adjustments. They also
21 respond to information requests, as well as process and post service orders that have
22 been referred to them by SWEPCO field personnel. In addition, they handle changes

1 in customer status associated with alterations in city limits due to municipal
2 annexations/de-annexations, work all billing account exceptions to ensure accounts
3 are billed accurately, and issue investigation orders to the field for rereading of
4 meters, lost meters, stopped meters, and other reasons.

5 Q. PLEASE DESCRIBE THE SERVICES PROVIDED TO SWEPKO BY THE
6 AEPSC CREDIT POLICY AND PAYMENT ADMINISTRATION SUBGROUP.

7 A. The AEPSC Credit Policy and Payment Administration subgroup's responsibilities
8 include customer bill print and insert functions, responding to bankruptcy filings
9 and performing bankruptcy-associated account maintenance. They process
10 payments from all public and private energy assistance sources, provide financial
11 information relative to nonresidential customer creditworthiness, prepare responses
12 to credit-related customer complaints to regulatory agencies, and provide statistical
13 information and measurements related to credit and collection activity.
14 Additionally, they administer and provide customer support for all non-mail
15 customer payment methods, including in-person payment locations, pay-by-
16 telephone services, and various electronic funds transfer methods.

17 Q. PLEASE DESCRIBE THE SERVICES PROVIDED TO SWEPKO BY THE AEPSC
18 CUSTOMER INTERFACE AND CHANNEL MANAGEMENT SUBGROUP.

19 A. The AEPSC Customer Interface and Channel Management (CICM) subgroup
20 employees have responsibilities that include support related to Customer Operations
21 including AEP's Operating Company websites. The customer services sections on
22 these websites are designed to enhance the customer experience while conducting

1 business online, and provide residential and business customers valuable
2 information and a full array of self-service account functions. Among these self-
3 service functions is the enrollment of customers in both outage alert and paperless
4 billing programs. The CICM team is also responsible for the efforts to raise
5 awareness and encourage additional customers to use these cost-effective customer
6 contact channels.

7 C. SWEPCO Interface with AEPSC CCO

8 Q. HOW DOES SWEPCO INTERACT WITH THE AEPSC CCO ORGANIZATION?

9 A. SWEPCO provides direction and input to that organization in several ways. AEPSC's
10 CCO organization is integral to the SWEPCO customer services organization. The
11 local AEPSC COC supervisors and AEPSC Billing and Account Operations
12 supervisors regularly attend SWEPCO Customer Services and Marketing
13 management meetings and staff conference calls and function as integral parts of that
14 team.

15 SWEPCO representatives help with various training conferences and serve on
16 a number of formal functional review groups that provide input to the AEPSC CCO
17 organization, and in particular to AEP leadership.

18 Q. WHAT OTHER MECHANISMS ARE AVAILABLE FOR SWEPCO TO PROVIDE
19 FEEDBACK AND DIRECTION TO THE AEPSC CCO ORGANIZATION?

20 A. Regularly scheduled meetings of the AEP operating company customer services
21 directors and the AEPSC customer service support organization leadership are
22 conducted where service issues are discussed and resolved. These discussions also

1 address best practices used in other operating companies to better and more efficiently
2 meet the needs of our customers. Additionally, the AEPSC CCO leadership team
3 travels to each operating company periodically to discuss specific concerns or needs
4 and to obtain feedback on the quality of service being provided to the operating
5 company.

6
7 III. METER SERVICES OVERVIEW

8 Q. HOW DOES SWEPCO PROVIDE THE METER SERVICES THAT RETAIL
9 CUSTOMERS REQUIRE IN CONNECTION WITH THE PROVISION OF
10 ELECTRIC SERVICE TO THEM BY SWEPCO?

11 A. SWEPCO's retail customers receive meter services they require in connection with
12 the provision of their electric service from the Meter Revenue Operations (MRO)
13 organization within SWEPCO. MRO employees are focused on the day-to-day
14 business of serving SWEPCO customers, including reading meters, completing a
15 variety of field service orders, and performing meter electrician services.

16 A. Description of the SWEPCO MRO Organization

17 Q. WHAT, IN GENERAL, IS THE SCOPE AND NATURE OF SWEPCO'S MRO
18 ORGANIZATION?

19 A. The SWEPCO MRO organization is comprised of employees that read meters,
20 complete a variety of field service orders, and perform meter electrician services – all
21 activities that are necessary to provide electric service to retail customers. SWEPCO
22 MRO works in conjunction with SWEPCO's customer services activities from

1 receiving outage reports and dispatching restoration orders, to resolving meter access
2 issues, coordinating the installation of new services and expansions, and performing
3 connects, disconnects, and re-reads. The specific services provided by this
4 organization are detailed in the following sections.

5 A high-level organizational chart of the SWEPCO MRO organization is
6 shown in Exhibit PP-2.

7 Q. PLEASE EXPLAIN THE STRUCTURE OF THE SWEPCO MRO
8 ORGANIZATION.

9 A. The SWEPCO MRO organization is comprised of 89 employees who provide
10 services related to provision of electricity to retail customers. SWEPCO MRO is
11 made up of four departments: 1) Field Revenue Operations, with 60 employees; 2)
12 Meter Services, with 22 employees; 3) Revenue Protection Coordinators, with 3
13 employees; and 4) Field Communications, with 4 employees. I will describe the
14 structure and functions of each of those four departments below.

15 1. Field Revenue Operations

16 Q. PLEASE DESCRIBE THE ACTIVITIES OF THE SWEPCO FIELD REVENUE
17 OPERATIONS GROUP.

18 A. Field Revenue Specialists are responsible for completing orders, which include
19 customer move-ins and move-outs, disconnections for non-payment and the
20 associated reconnections, special reads for off-cycle switches, and meter re-read
21 requests. These employees also investigate and resolve reports of broken meter seals.

Additionally, Meter Servicers and Meter Readers are responsible for obtaining daily meter readings for customer billing.

2. Meter Services

Q. PLEASE DESCRIBE THE ACTIVITIES OF THE SWEPCO METER SERVICES GROUP.

A. Meter Technicians are responsible for performing technical work and related activities associated with the planning, engineering, design, analysis, research, development testing, construction, maintenance, and operation of company equipment and facilities. Meter Electricians' duties include designing, installing, and maintaining transformer-rated metering equipment, as well as performing internally generated and customer-requested meter tests for residential, commercial, and industrial meters.

3. Revenue Protection Coordinators

Q. PLEASE DESCRIBE THE ACTIVITIES OF THE SWEPCO REVENUE PROTECTION COORDINATORS GROUP.

A. SWEPCO MRO has three Revenue Protection Coordinators, with one in Texas, whose function is to investigate and resolve energy diversion and theft.

4. Field Communications

Q. PLEASE DESCRIBE THE ACTIVITIES OF THE SWEPCO FIELD COMMUNICATIONS DEPARTMENT.

A. SWEPCO MRO also includes the Field Communications department, which serves as a radio contact point with MRO employees, as well as distribution employees. Their functions include tracking and expediting time-sensitive orders, dispatching

1 emergency orders, including those received after normal business hours, and serving
2 as an emergency resource for MRO employees involved in hazardous circumstances.
3

4 IV. QUALITY OF SERVICE

5 Q. HOW DOES SWEPCO TRACK CUSTOMER SATISFACTION?

6 A. SWEPCO measures and tracks end-use customer satisfaction using four separate
7 surveys, three of which are performed by independent market research firms on behalf
8 of SWEPCO. There are four separate surveys because there are four different sets of
9 customers: 1) residential; 2) commercial; 3) managed account customers; and
10 4) customers who have had a recent experience with a COC. The managed account
11 customer surveys are directed at managed and key accounts, including accounts such
12 as the federal government and Wal-Mart Stores, Inc., which have operations in the
13 service territory of multiple AEP Operating Companies. The COC transactional
14 survey is completed only by customers who have had a recent interaction with the
15 COCs.

16 Q. ARE THERE ANY OTHER MEASURES THAT COULD REFLECT ON
17 CUSTOMER SATISFACTION?

18 A. Yes, customer complaints filed with the PUC can also serve as a measure of customer
19 satisfaction. SWEPCO Texas customers did not file any formal complaints with the
20 PUC during the Test Year.²

² The Test Year is the twelve-month period ending March 31, 2020.

1 A. Residential and Commercial Customer Surveys

2 Q. PLEASE DESCRIBE THE RESIDENTIAL AND COMMERCIAL CUSTOMER
3 SURVEYS.

4 A. The surveys for residential and commercial customers were conducted throughout the
5 year via telephone and online interviews with a random sample of SWEPCO
6 customers. Both surveys were conducted by the MSR Group. The MSR Group is an
7 unaffiliated survey research firm, which ensured the integrity and quality of the data.
8 Both surveys contained many questions, including topics such as providing electricity
9 without interruption, restoration of service when power outages occur, reasonable
10 rates of electricity, communicating changes affecting account or service, and
11 involvement in the community.

12 Q. PLEASE DESCRIBE HOW THE SAMPLES ARE SELECTED FOR THE
13 RESIDENTIAL AND COMMERCIAL CUSTOMER SURVEYS.

14 A. The residential and commercial surveys were administered by phone and online
15 interviews, employing a random SWEPCO-supplied sample of residential and
16 commercial customers obtained from the Company's customer information system.

17 Q. PLEASE DESCRIBE SWEPCO'S RESIDENTIAL AND COMMERCIAL
18 CUSTOMER SURVEYS PERFORMANCE.

19 A. Figure 1 displays SWEPCO's 2019 overall customer satisfaction percentage ratings
20 for residential and commercial customers. The percentages below represent the
21 percent of positive responses (ratings of '4' to '5' using a '0' to '5' scale). The results
22 are shown for the entire SWEPCO service territory.

Figure 1 – 2019 Overall Customer Satisfaction Ratings

	SWEPCO
Residential	83%
Commercial	89%

Q. PLEASE DESCRIBE ANY ADDITIONAL SURVEYS CONDUCTED FOR RESIDENTIAL CUSTOMERS.

A. SWEPCO also participates in the J.D. Power Electric Utility Residential Customer Satisfaction Survey, which is a national benchmarking study conducted via online survey panels. The study examines satisfaction across six factors: Power Quality and Reliability; Price; Billing and Payment; Communications; Corporate Citizenship; and Customer Care, with the Customer Satisfaction Index (CSI) score as the primary Index Score. The six factors and the CSI are based on a 1,000 point scale. JD Power group's investor owned utilities (IOUs) according to customer size and geographic location. SWEPCO is in the South Midsize (100,000 – 499,999 customers) region amongst 19 other utility peers. Nationally, there are about 142 other IOUs with varying number of customers and in various regions of the country.

Q. HOW DID SWEPCO'S RESULTS IN THE J.D. POWER ELECTRIC UTILITY RESIDENTIAL CUSTOMER SATISFACTION SURVEY COMPARE TO OTHER UTILITIES?

Figure 2 displays SWEPCO's overall CSI ratings for 2019 compared to the South Midsize Region and industry averages for residential customers. The results are shown for the entire SWEPCO service territory.

Figure 2 – 2019 J.D. Power CSI Ratings (out of 1,000 points)

<u>SWEPCO</u>	<u>South Midsize Region</u>	<u>Industry</u>
727	733	725

B. Managed Account Customer Survey

Q. PLEASE DESCRIBE THE MANAGED ACCOUNT CUSTOMER SURVEY.

A. SWEPCO utilizes AEP's Corporate Performance Management group to conduct customer satisfaction surveys for its managed accounts. The managed account survey is conducted bi-annually with large customers and chain account customers. The survey questions cover six focus areas as shown in Figure 3 below.

Q. PLEASE DESCRIBE HOW THE SAMPLES ARE SELECTED FOR THE MANAGED ACCOUNT CUSTOMER SURVEY.

A. To survey these managed accounts, AEP selects SWEPCO's assigned account contacts and sends them e-mail invitations to participate in the online survey.

Q. PLEASE DESCRIBE SWEPCO'S MANAGED ACCOUNT CUSTOMER SURVEY PERFORMANCE.

A. Figure 3 shows the results for the entire SWEPCO territory. The percentages below represent the percent of 'Satisfied' and 'Very Satisfied' responses on a five-point rating scale (ratings of 'Very Dissatisfied' to 'Very Satisfied').

Figure 3 – 2019 Key Account Customer Satisfaction Ratings

Focus Area	SWEPCO %
Reliability	86%
Corporate Citizenship	95%
Energy Management	83%
Price	92%
Account Manager	99%
Satisfaction with SWEPCO	94%

C. Customer Operations Center Surveys

Q. PLEASE DESCRIBE THE COC TRANSACTIONAL SURVEY.

A. The MSR Group also conducted the COC transactional survey. The COC transactional survey employed both a telephone and online interview methodology to conduct the survey.

Q. PLEASE DESCRIBE HOW THE SAMPLES WERE SELECTED FOR THE CALL CENTER TRANSACTIONAL SURVEY.

A. The MSR Group randomly selected a daily sample of customers from the SWEPCO service territory who have had a recent transaction with the call center. The sample population included all SWEPCO customers who placed one of the 2,422,353 calls received by the call centers during 2019. These samples typically are approximately 90 percent residential customers and 10 percent small commercial customers. Interviews are targeted for completion no later than ten days after the transaction and are self-identified by the respondent as to transaction type.

Q. WHAT WERE SWEPCO'S RESULTS IN THE CALL CENTER TRANSACTIONAL SURVEY?

1 A. Customers were asked how satisfied they were with the entire transaction experience
2 with the call center. The overall customer satisfaction rating was 82 percent out of a
3 possible 100 percent, which is viewed as a positive result.

4 D. Meter Reading

5 Q. ARE THERE ANY OTHER PERFORMANCE MEASURES THAT SWEPCO
6 TRACKS TO ENSURE A HIGH QUALITY OF SERVICE?

7 A. Yes. SWEPCO Texas tracks the percentage of meters that are read each month.
8 During the Test Year, a total of 2,229,312 meter reads were made, which was
9 99.2 percent of the available meter reads. This high percentage shows that SWEPCO
10 uses estimation minimally and makes every possible effort to obtain actual meter
11 readings.

12

13 V. CUSTOMER SERVICES COSTS

14 Q. WHAT ARE THE TOTAL TEST YEAR COSTS FOR SWEPCO CUSTOMER
15 ACCOUNTS AND CUSTOMER SERVICES?

16 A. The total adjusted Test Year expenses are \$25,774,594, which includes \$22,778,796
17 relating to Customer Accounts and \$2,995,799 relating to Customer Services and
18 Meter Revenue Operations. Affiliate costs make up \$11,392,833 of the total Test
19 Year expenses. These costs exclude the EE amounts that are recovered through the
20 EECRF, as discussed earlier.

21 Q. WHAT METHODS HAVE YOU USED TO DETERMINE THE
22 REASONABLENESS OF SWEPCO OVERALL CUSTOMER SERVICES COSTS?

1 A. I have utilized several methods for proving the reasonableness of the costs, including
2 cost trends and comparisons to the customer services costs of similar utilities.

3 Cost Trends

4 Q. PLEASE DESCRIBE THE COST TREND FOR SWEPCO'S CUSTOMER
5 SERVICES COSTS OVER THE PAST FEW YEARS.

6 A. Figure 4 shows the Customer Services costs for 2017-2019, and the Test Year. The
7 costs include those incurred both by SWEPCO directly and also those charged to
8 SWEPCO by AEPSC. The following costs include all the costs charged to Federal
9 Energy Regulatory Commission (FERC) accounts 901, 902, 903, 904, 905, 907, 908,
10 909, and 910, with the exception of EE costs, which are excluded as previously
11 discussed. As can be seen in Figure 4, the Test Year Customer Services costs have
12 decreased since 2017, providing a good illustration of SWEPCO's ongoing
13 commitment to cost control.

14 Figure 4 – Customer Services Costs

	2017	2018	2019	Test Year
Customer Accounts	\$19,947,589	\$20,466,354	\$22,710,945	\$22,778,796
Customer Services	\$3,321,196	\$4,594,549	\$3,846,845	\$2,995,799
Total	\$23,268,785	\$25,060,903	\$26,557,790	\$25,774,594

15 Cost Comparisons

16 Q. HAVE YOU PERFORMED ANY STUDIES THAT FURTHER SUPPORT THE
17 REASONABLENESS OF SWEPCO'S CUSTOMER SERVICES EXPENSES?

18 A. Yes. Internal benchmarking using FERC Form 1 data from 2017-2019 compares
19 SWEPCO's customer service accounts to three peer groups, based on per end-use
20 customer. The three peer groups were a Texas peer group, a south central peer

1 group, and a national peer group. These studies provide the minimum, maximum,
2 and median values for each metric and the relative position of the corresponding
3 SWEPCO metric for comparison.

4 Q. PLEASE DESCRIBE THE THREE PEER GROUPS THAT WERE SELECTED.

5 A. The Texas peer group consists of four investor-owned integrated electric utilities in
6 Texas: SWEPCO, El Paso Electric Company (EPE), Southwestern Public Service
7 Company (SPS), and Entergy Texas Inc. Electric Reliability Council of Texas
8 members are excluded because, as unbundled utilities, the customer services they
9 provide are significantly different from those provided by an integrated utility. The
10 south central peer group, with a total of 14 utilities, includes the Texas peer group
11 utilities, most of the investor-owned utilities in all of the states that border Texas,
12 and investor-owned utilities in Kansas. By including Kansas, the peer group
13 includes most of the investor-owned electric utilities that are members of the
14 Southwest Power Pool. The national peer group, with a total of 78 utilities, includes
15 the utilities that make up the S&P 500 Utilities Index, as well as the south central
16 peer group utilities. The members of the Texas, south central and national peer
17 groups, and the benchmarking results are contained in EXHIBITs PP-4, PP-5, and
18 PP-6.

19 Q. PLEASE DISCUSS THE METHODOLOGY YOU HAVE FOLLOWED IN
20 CONDUCTING THE BENCHMARKING STUDIES PRESENTED IN THIS
21 TESTIMONY.

1 A. As mentioned above, these benchmarking studies are based on FERC Form 1 data,
2 which is a required filing for all investor-owned electric utilities in the United
3 States and is information that is straightforward, readily available, and clear. The
4 benchmarking metrics include accounts 901-Supervision, 902- Meter reading
5 expenses, 903-Customer records and collections expenses, 904-Uncollectible
6 accounts, 905-Miscellaneous customer accounts expenses, 908-Customer assistance
7 expenses, 909-Informational and instructional expenses, and 910-Miscellaneous
8 customer service and informational expenses. I excluded account 907 as it primarily
9 reflects EE incentive cost. I would note that companies may have somewhat
10 different practices regarding which costs go into individual accounts; thus, this
11 comparison has some limitations.

12 Q. ARE BENCHMARK COMPARISONS BASED ON FERC FORM 1 FILINGS OF
13 OTHER UTILITIES THE TYPE OF INFORMATION THAT AEP AND ITS
14 OPERATING COMPANIES COMMONLY USE TO ASSESS THE
15 PERFORMANCE OF THEIR OPERATIONS?

16 A. Yes. Benchmarking requires comparable data from a common source for all of the
17 entities compared in the benchmarking study. FERC Form 1 includes data by FERC
18 Accounts, which are the standardized accounts utilized for reporting operations and
19 maintenance (O&M) and capital expenditures. For these reasons, FERC Form 1
20 data is a reasonable source to use for benchmarking activities.

21 Q. WHAT ARE THE RESULTS OF THE BENCHMARKING STUDIES WITH
22 RESPECT TO THE TEXAS PEER GROUP?

1 A. SWEPCO's customer service costs for the benchmarked period are higher than EPE
2 and lower than SPS. This is not surprising because EPE's load in Texas is
3 concentrated in the city of El Paso, while SPS and SWEPCO serve territories that
4 are far less densely populated. Customer density is a significant driver of customer
5 service costs. The cost per customer for functions such as meter reading and field
6 order completion activities, which are labor and travel-intensive, is greater when
7 serving a large geographic area with low customer density compared to serving a
8 small geographic area with high customer density.

9 Q. WHAT ARE THE RESULTS OF THE BENCHMARKING STUDIES WITH
10 RESPECT TO THE SOUTH CENTRAL AND NATIONAL PEER GROUPS?

11 A. SWEPCO compares favorably to both groups. SWEPCO's customer service costs
12 are consistently at or below the median in the south central group. This is
13 particularly notable given that SWEPCO's service territory is generally less dense
14 than many of the utilities in that group, which as noted above is a significant driver
15 of customer service costs. EPE and Entergy New Orleans have dense areas of load
16 concentrations, located primarily in large cities. Others in the group, such as
17 Entergy Arkansas, Evergy Kansas, and Oklahoma Gas and Electric Company, also
18 serve cities much larger than any in SWEPCO's service territory.

19 With respect to the national peer group, which is perhaps the best
20 comparison because it includes 78 companies, SWEPCO is slightly below the
21 median in each of the three years measured.

The overall benchmarking results demonstrate that SWEPCO's customer service costs are in line with other utilities and are reasonable.

VI. AFFILIATE COSTS

Q. WHAT EVIDENCE SUPPORTS THE REASONABLENESS AND NECESSITY OF THE TEST YEAR CUSTOMER SERVICES AFFILIATE CHARGES TO SWEPCO?

A. The recent budget performance and cost trends for the AEPSC CCO organization are discussed below. In addition, the benchmarking of total SWEPCO customer services costs (affiliate and direct) discussed above supports the reasonableness of the affiliate charges, since affiliate costs are a significant portion of the total amount. Finally, the high customer satisfaction achieved by SWEPCO supports the fact that AEPSC is providing effective support to SWEPCO's customer operations.

Q. WHAT WERE THE CUSTOMER SERVICES AFFILIATE EXPENSES CHARGED TO SWEPCO FOR THE TEST YEAR THAT YOU SUPPORT?

A. Test Year customer operations affiliate expenses charged to SWEPCO that I support total \$11,392,833.

Q. HOW DO SWEPKO'S TEST YEAR AFFILIATE EXPENSES BREAK DOWN BY MAJOR COST CATEGORY?

A. The expenses can be broken down into the following categories:

<u>Category</u>	<u>Amount</u>	<u>Percent</u>
Labor / Benefit	\$8,161,956	72%
Outside Services	\$2,319,889	20%
<u>Other</u>	<u>\$ 910,988</u>	<u>8%</u>
Total	\$11,392,833	100%

1 Q. WHY ARE THESE COST COMPONENT CATEGORIES SIGNIFICANT?

2 A. This breakdown shows that the majority of test year AEPSC affiliate charges to
3 SWEPCO are composed of labor and benefits. The reasonableness of AEPSC's labor
4 and benefit costs are supported by SWEPCO witness Andrew R. Carlin.

5 Q. EXPLAIN WHAT IS INCLUDED IN THE OUTSIDE SERVICES COST
6 CATEGORY.

7 A. Outside Services are contract services used as necessary to provide specialized
8 services that the AEPSC CCO organization is not staffed to provide and to
9 supplement the services the organization does provide. Contractors are used in lieu of
10 hiring additional permanent staff or to perform specialized, overflow work activities
11 when the demands for customer services exceed the organization's ability to satisfy
12 with existing in-house resources. For example, the outside services costs include
13 payments to vendors who, when called upon, handle overflow calls from call centers.
14 These services provide benefit to SWEPCO customers by assisting during times of
15 peak call volume to ensure readily available access to customer service.

16 Q. WHAT HAS BEEN THE COST TREND FOR SWEPCO CUSTOMER SERVICES
17 AFFILIATE EXPENSES SINCE 2017?

18 A. SWEPCO's overall CCO O&M affiliate costs have modestly increased since 2017.
19 Figure 5 shows the Customer Services affiliate costs for SWEPCO for the last three
20 calendar years and test year.

Figure 5 – CCO Affiliate O&M Costs

<u>Year</u>	<u>Amount</u>
2017	\$ 9,168,426
2018	\$10,605,592
2019	\$11,235,436
Current Test Year	\$11,392,833

The costs in Figure 5 has been largely consistent, but has slightly increased over the last three calendar years for the AEPSC CCO organization, as well as the Test Year. The modest growth in affiliate charges generally coincides with increased labor costs, as well as additional outside services costs associated with increased customer support. In 2016, with the formation of the CCO organization, AEPSC has made investments in people, processes, and technology to formalize and execute a strategy to enhance the customer experience and make it easier for customers to do business with us.

Q. HAS THE NUMBER OF FULL-TIME EMPLOYEES WITHIN THE AEPSC CCO ORGANIZATION CHANGED SINCE THE END OF 2017?

A. Yes. The AEPSC CCO organization had 752, 799, and 781 employees at the end of 2017, 2018, and 2019, respectively. The AEPSC CCO organization had 779 employees at the end of the Test Year.

Performance-to-Budget

Q. PLEASE EXPLAIN THE PLANNING, BUDGETING, AND OTHER COST CONTROL MEASURES USED BY THE AEPSC CCO ORGANIZATION.

A. The AEPSC CCO organization employees follow rigorous internal forecasting and cost control processes similar to those employed by SWEPCO employees. Budget targets for the upcoming year are based on prior year budget inputs plus or minus any

1 items that are identified and approved for inclusion or omission. Labor expense is
2 budgeted by hours. Materials, supplies, outside services expenses, etc., are budgeted
3 based on prior activity and any anticipated changes. Throughout the year, costs are
4 tracked on a monthly basis. Variances from budget are reviewed monthly and
5 discussed with Customer Services management.

6 Q. IS AEPSC ABLE TO DIRECTLY BILL SWEPCO FOR CALLS RECEIVED FROM
7 SWEPCO CUSTOMERS?

8 A. Yes. AEPSC can directly track the exact origin and the duration of the call and direct
9 bill SWEPCO based on the number and length of calls received from SWEPCO
10 customers. This has been greatly influenced by some initiatives undertaken that
11 support moving to a customer centric call center. The initiatives include, but are not
12 limited to, first call resolution, reduction of customer effort and new technologies
13 supporting call reduction (i.e., proactive outage alerts, outage mapping, and virtual
14 hold). Therefore, SWEPCO is billed from AEPSC for those calls that relate only to
15 SWEPCO customers.

16 Q. HOW DOES THE AEPSC CCO ORGANIZATION PROCURE OUTSIDE
17 SERVICES AT REASONABLE PRICES?

18 A. The AEPSC CCO organization follows competitive bidding procedures to obtain
19 contracts and services at a reasonable price. Generally, the organization is able to
20 leverage the buying power of multiple companies in order to achieve volume
21 discounts that inure to individual operating companies.

1 Q. HOW HAS THE AEPSC CCO ORGANIZATION PERFORMED AGAINST
2 BUDGET?

3 A. Figure 6 shows the AEPSC CCO organization total O&M budget versus actual
4 performance for the years 2018, 2019, and the Test Year. These amounts reflect what
5 the AEPSC CCO organization budgeted and spent for the entire AEP system, not
6 simply SWEPCO. Short- and long-term incentive amounts have been removed from
7 my analysis, and are discussed in the testimony of SWEPCO witnesses Carlin, Baird,
8 and Brian J. Frantz.

9 Figure 6 – AEPSC Customer Services Budget vs. Actuals

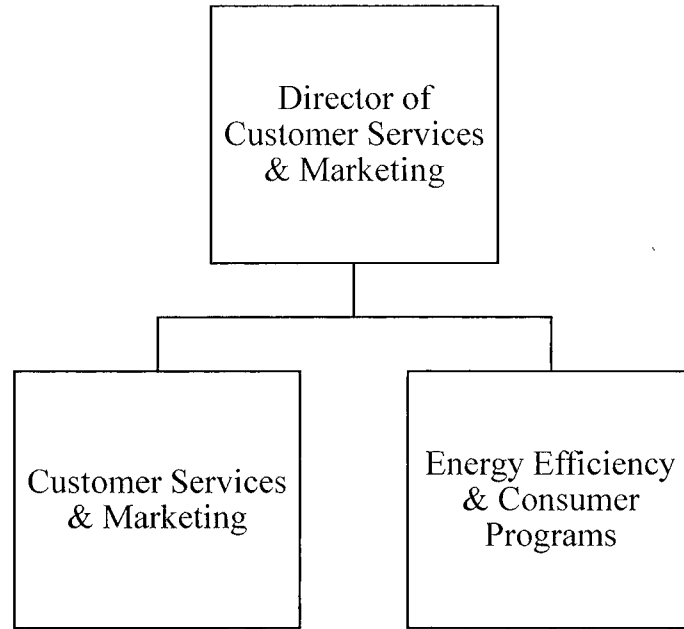
	<u>2018</u>	<u>2019</u>	<u>Test Year</u>
Budget	\$75,930,249	\$77,079,506	\$77,566,745
Actual	\$74,805,281	\$82,163,349	\$82,930,660
Over (Under)	(\$1,124,968)	\$5,083,842	\$5,363,915

10 The budget has increased approximately 2.2 percent since 2018, and the
11 increase in the actual expenditures trend was primarily driven by materials and
12 supplies increases and outside services increases. Increased costs for materials and
13 supplies are attributable to our bill print and insert functions with paper and envelope
14 costs rising. As discussed above, the increased expenditures for outside services
15 generally coincides with the AEPSC's strategy to enhance the customer experience
16 with the enhancement and implementation of customer relationship management,
17 engagement, and survey tools.

18 Q. DO OTHER SWEPCO WITNESSES DISCUSS CUSTOMER SERVICES
19 AFFILIATE COSTS?

1 A. Yes. SWEPCO witness Frantz provides testimony regarding the reasonableness of
2 the AEPSC allocation factors utilized to allocate the AEPSC CCO organization costs
3 to SWEPCO.
4 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
5 A. Yes, it does.

**Exhibit PP-1 SWEPCO Customer Service & Marketing (CS&M)
Organizational Chart**



**Exhibit PP-2 SWEPCO Meter Revenue Operations (MRO)
Organizational Chart**

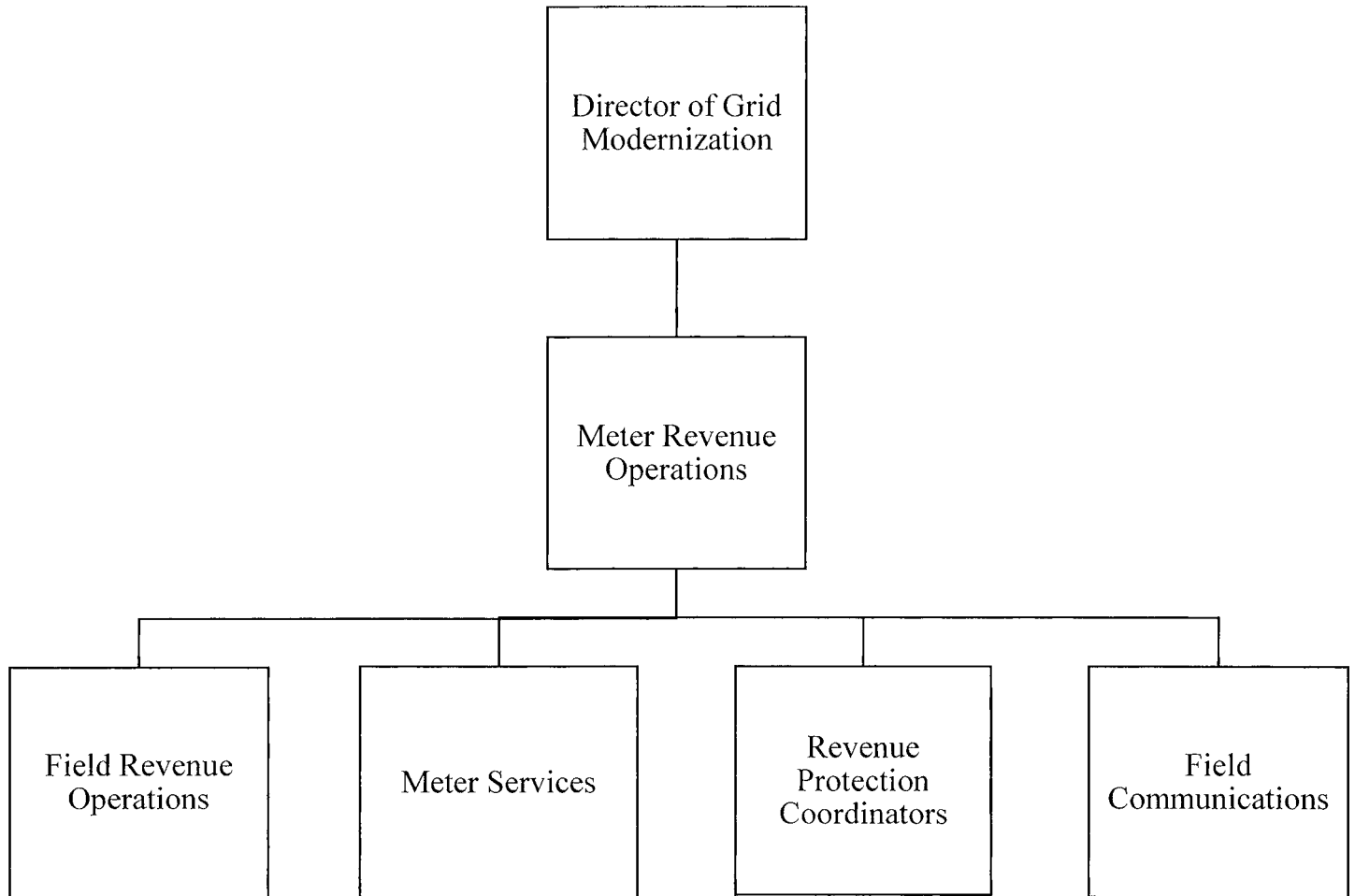


Exhibit PP-3 AEPSC Chief Customer Officer (CCO) Organizational Chart

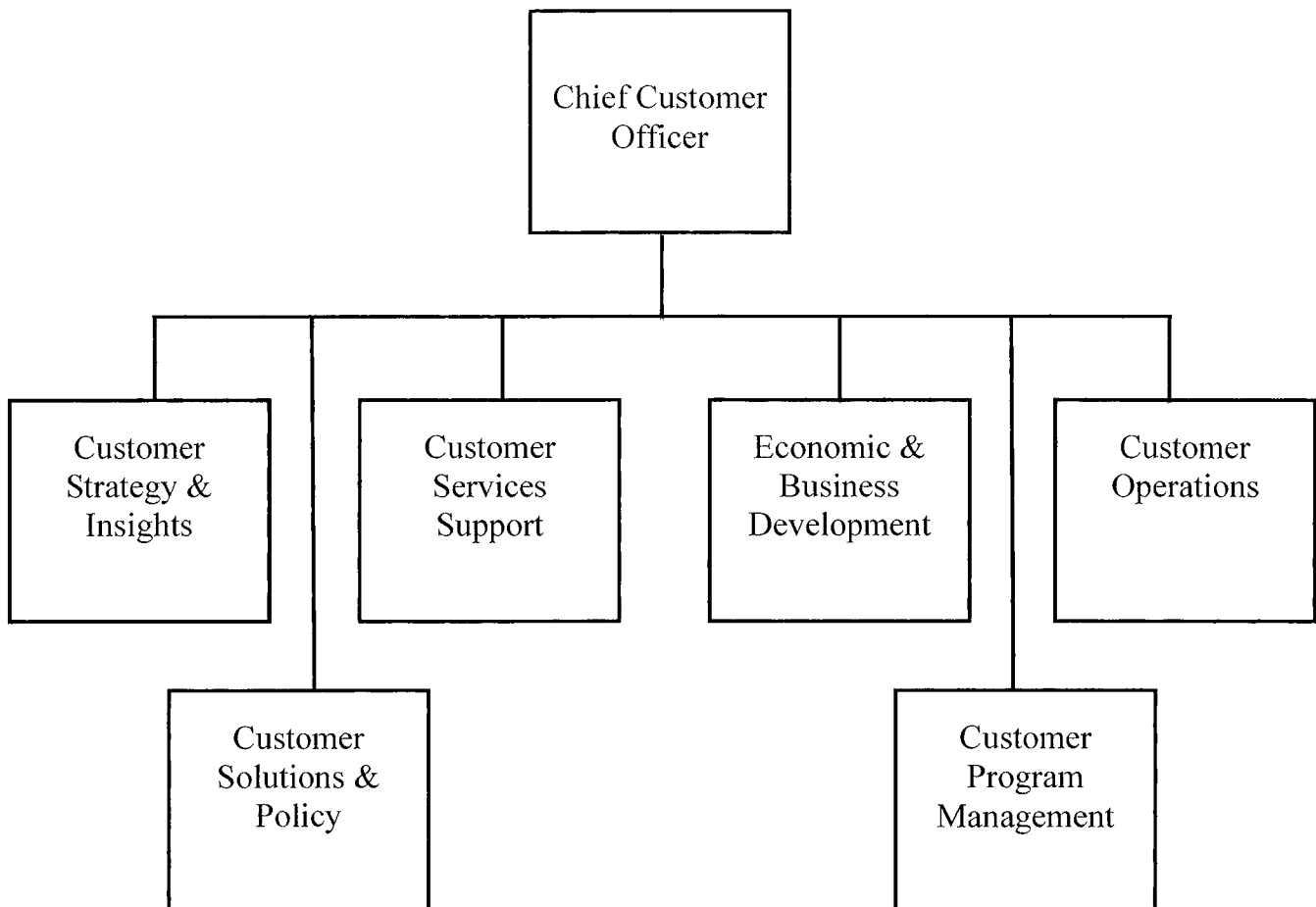
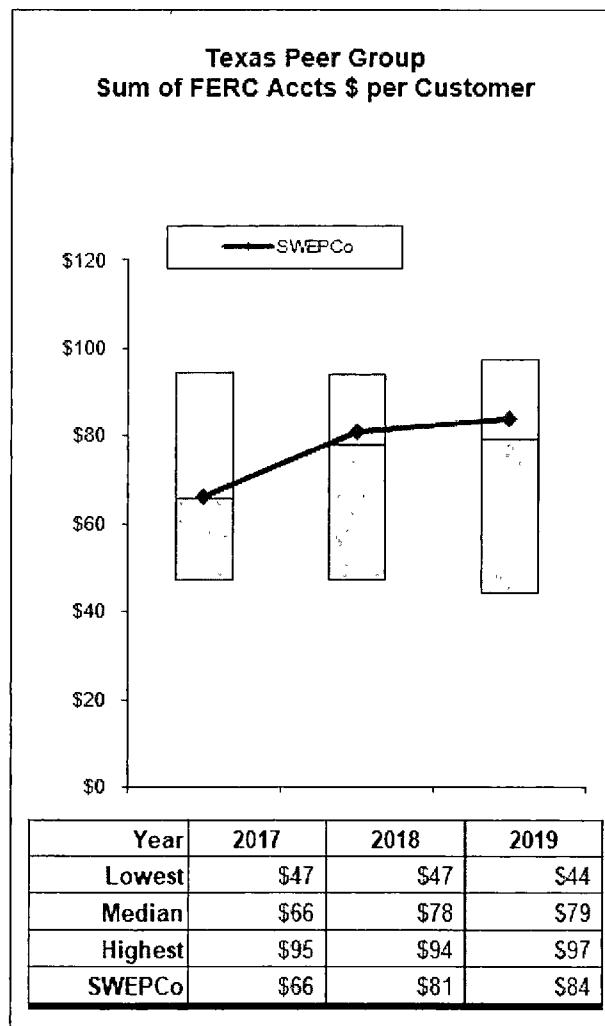


Exhibit PP-4

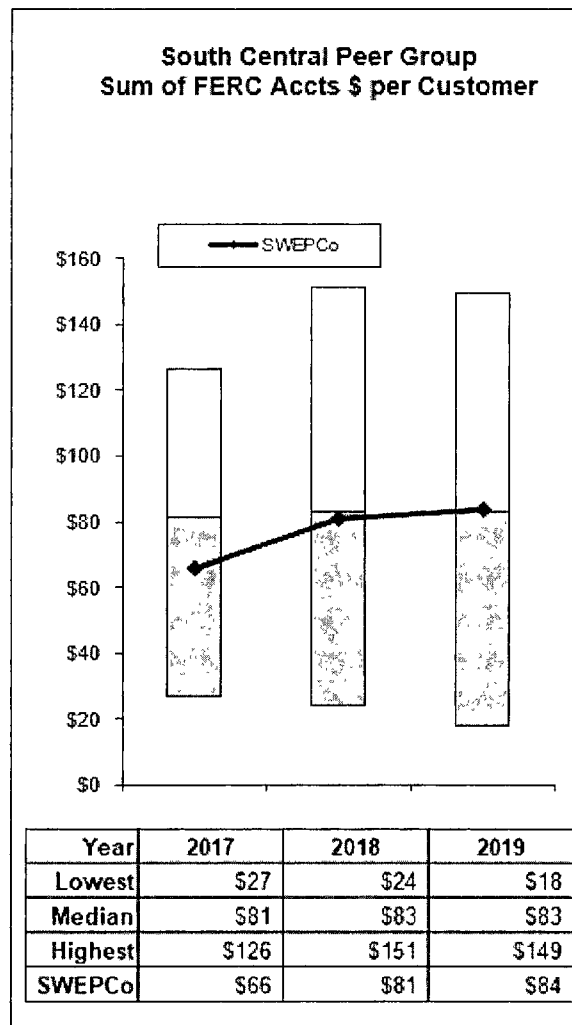
Texas Peer Group

Utilities in Peer Group:

El Paso Electric Co
 Entergy Texas Inc
 Southwestern Electric Power Co
 Southwestern Public Service Co

Exhibit PP-5

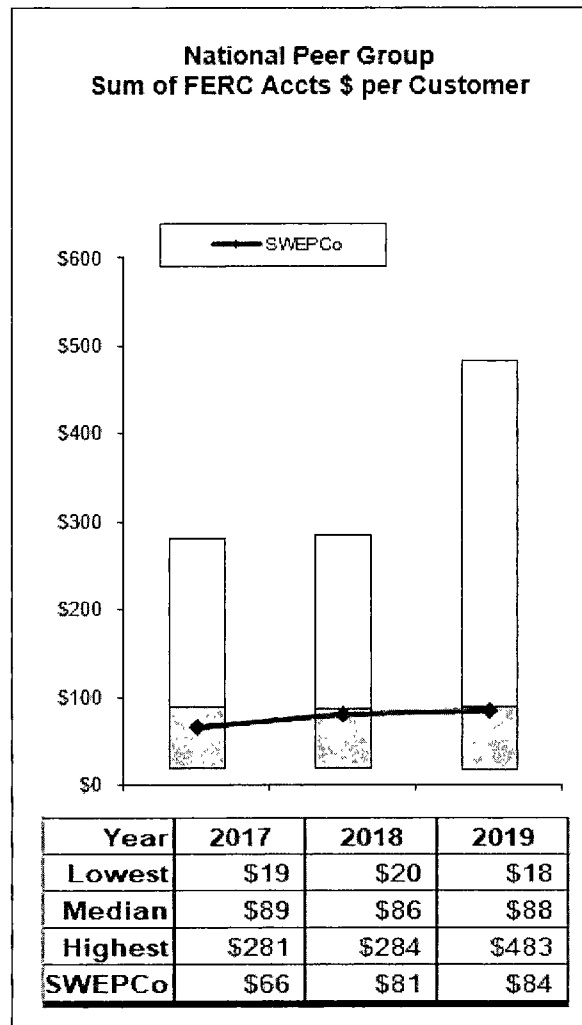
South Central Peer Group

Utilities in Peer Group:

CLECO Power LLC
 El Paso Electric Co
 Entergy Arkansas Inc
 Entergy Louisiana Inc
 Entergy New Orleans Inc
 Entergy Texas Inc
 Evergy Kansas Central Inc

Evergy Kansas South Inc
 Evergy Metro Inc
 Oklahoma Gas & Electric Co
 Public Service Co of New Mexico
 Public Service Co of Oklahoma
 Southwestern Electric Power Co
 Southwestern Public Service Co

Exhibit PP-6
National Peer Group



Utilities in Peer Group:

AEP Texas Central Co	Metropolitan Edison Co
AEP Texas Inc	Mississippi Power Co
AEP Texas North Co	Monongahela Power Co
Alabama Power Co	Nevada Power Co
Ameren Illinois	New York State Electric & Gas Corp
Ameren Missouri	Northern Indiana Public Service Co
Appalachian Power Co	Northern States Power Co (Minnesota)
Arizona Public Service Co	Northern States Power Co (Wisconsin)
Baltimore Gas & Electric Co	NSTAR Co
CenterPoint Energy Houston Electric LLC	Ohio Edison Co
CLECO Power LLC	Ohio Power Co
Cleveland Electric Illuminating Co (The)	Oklahoma Gas & Electric Co
Commonwealth Edison Co	Oncor Electric Delivery
Connecticut Light & Power Co (The)	Orange & Rockland Utilities Inc
Duke Energy Carolinas	Pacific Gas & Electric Co
Duke Energy Florida	PacifiCorp
Duke Energy Indiana	PECO Energy Co
Duke Energy Kentucky	Pennsylvania Electric Co
Duke Energy Ohio	Portland General Electric Co
Duke Energy Progress	Potomac Edison Co (The)
El Paso Electric Co	Potomac Electric Power Co
Entergy Arkansas Inc	PPL Electric Utilities Corp
Entergy Louisiana Inc	Public Service Co of Colorado
Entergy Mississippi Inc	Public Service Co of New Mexico
Entergy New Orleans Inc	Public Service Co of Oklahoma
Entergy Texas Inc	Public Service Electric & Gas Co
Evergy Kansas Central Inc	Puget Sound Energy Inc
Evergy Kansas South In	Rockland Electric Co
Evergy Metro Inc.	San Diego Gas & Electric Co
Evergy Missouri West Inc	Southern California Edison Co
Florida Power & Light Co	Southern Indiana Gas & Electric Co
Georgia Power Co	Southwestern Electric Power Co
Gulf Power Co	Tampa Electric Co
Indiana Michigan Power Co	Toledo Edison Co (The)
Jersey Central Power & Light Co	Virginia Electric & Power Co
Kentucky Power Co	West Penn Power Co
Kentucky Utilities Co	Wheeling Power Co
Kingsport Power Co	Wisconsin Electric Power Co
Louisville Gas & Electric Co	Wisconsin Public Service Corp

EXECUTIVE SUMMARY OF BRIAN BOND

Brian Bond is Vice President External Affairs for Southwestern Electric Power Company (SWEPCO). As Vice President of External Affairs, he is responsible for the Community Affairs, Governmental Affairs, Economic Development and Environmental Affairs activities at SWEPCO.

Mr. Bond discusses SWEPCO's External Affairs organization and the services it provides in support of SWEPCO's mission to provide safe and reliable electricity to SWEPCO's customers. SWEPCO's External Affairs group performs the following functions for SWEPCO: 1) liaison and communications with local governments and state officials; 2) participation in community and business development; 3) legislative analysis, monitoring, and advocacy; and 4) management of charitable contributions.

Mr. Bond also supports the reasonableness and necessity of the affiliate charges billed to SWEPCO by the American Electric Power Service Corporation (AEPSC) Federal Affairs organization, including External Affairs executive support. AEPSC Federal Affairs provides federal governmental affairs support for SWEPCO and the other AEP companies. AEPSC Federal Affairs services are necessary to ensure that SWEPCO is apprised of national legislative and regulatory developments and to assess the impact of such developments on SWEPCO and its customers. This enables SWEPCO to comply with resulting federal laws and regulations. These services are provided exclusively by AEPSC Federal Affairs.

During the test year, \$168,797 of affiliate charges for Federal Affairs and administrative services were billed to SWEPCO. Mr. Bond demonstrates that these charges are reasonable and necessary.

Mr. Bond also supports the reasonableness and necessity of the affiliate charges billed to SWEPCO by AEPSC's Corporate Sustainability group and the important role this group plays in engaging customers, investors, employees, policymakers, community partners and non- government organizations on behalf of SWEPCO to promote corporate sustainability and governance initiatives driving shared value for our business and society. During the test year, \$79,214 of affiliate charges for corporate sustainability services were billed to SWEPCO.

Mr. Bond supports the reasonableness of SWEPCO's requested amounts included in cost of service for memberships and for charitable contributions and donations, including qualifying membership and charitable contributions and donations allocated to the Company on behalf of AEPSC. Contributions and donations are primarily associated with educational, community service and economic development activities. The amounts requested for contributions and membership expenses fall within the Commission's requirements regarding inclusion of charitable contributions and membership expenses in rates.

Mr. Bond discusses SWEPCO's Corporate Communications organization and the services it provides in support of SWEPCO's mission to provide safe and reliable electricity to SWEPCO's customers. SWEPCO's Corporate Communications group performs the following functions for SWEPCO: 1) state and local corporate communications and media relations; 2) company internal and external communications; 3) local advertising; 4) emergency communications planning; 5) liaison with AEPSC Corporate Communications; and 6) coordination of charitable contributions and sponsorships with SWEPCO External Affairs.

Mr. Bond also supports the reasonableness and necessity of the affiliate charges billed to SWEPCO by the AEPSC Corporate Communications department and explains how the group's centralized services add significant value for SWEPCO, complementing the services performed by the SWEPCO Corporate Communications group.

Mr. Bond demonstrates that the advertising costs requested by SWEPCO in this case are reasonable and consistent with the Commission rules regarding recovery and should be included in SWEPCO's cost of service.

Finally, Mr. Bond supports the reasonableness and necessity of the affiliate charges billed to SWEPCO by the AEPSC Environmental Services organization and explains how the group's services enable SWEPCO's generation, transmission and distribution operations to cost effectively comply with all applicable environmental, health and safety requirements.